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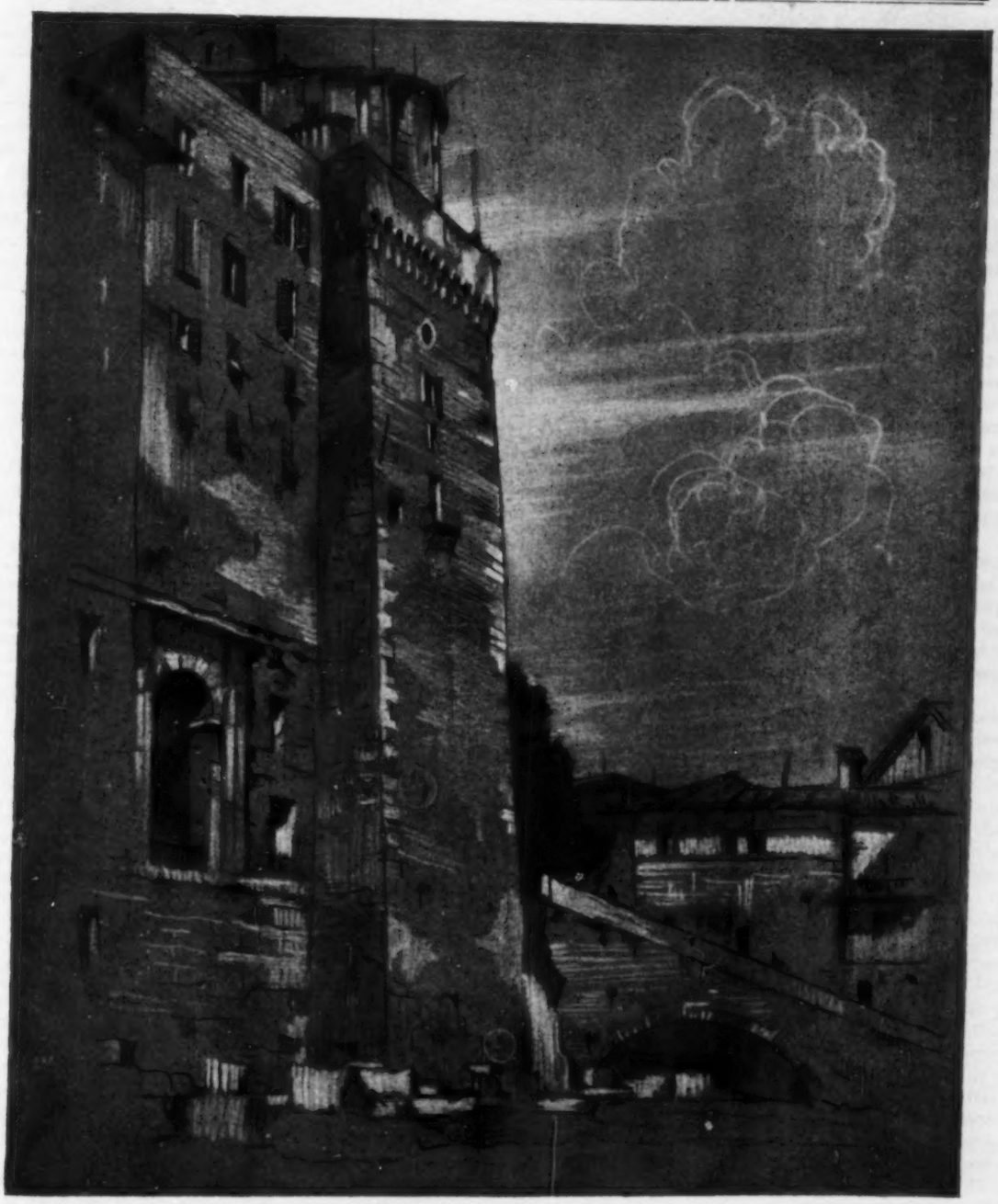


The back wall of the Capitol, Rome.

From a drawing by Mr. Lawrence Wright.

MEETINGS

Friday, *January* 2, 1931.

Institution of Mechanical Engineers. Mr. S. J. Davies on "An Experimental Investigation into Induction Conditions, Distribution, and Turbulence in Petrol Engines." 5 p.m.

Monday, *January* 5.

Royal Institute of British Architects. Award of Prizes and Studentships. Criticism by Mr. T. A. Darcy Braddell on work submitted for Prizes and Studentships. 8 p.m.

Tuesday, *January* 6.

Institution of Electrical Engineers (Scottish Centre). Mr. W. G. Johnson on "Street Lighting." At Edinburgh. 7.15 p.m.

Wednesday, *January* 7.

Liverpool Architectural Society. Mr. Clough Williams Ellis on "Cautionary Guide to Liverpool and Surrounding Country."

Institution of Heating and Ventilating Engineers. Mr. C. G. Heys Hallett on "The Theory of Radiant Heating." 7 p.m.

A Holiday Sketch.

By Mr. A. C. Fare, A.R.I.B.A.

REGIONAL OR NATIONAL PLANNING?

"The Arcadian charm of rural England depends largely on the fact that form and movement and colour are a decorative scheme which harmonises with the quiet continuity of the least changing of industrial pursuits. Agricultural England is a country of gentle undulations, and where rivers flow quietly in winding curves, a land well timbered by deciduous trees of rounded form, of fields divided by a bushy fence, all in a climate of soft skies, where the song of birds is heard throughout the year. And we still have a wealth of architecture of cob and thatch, of mellow brick and mossy tile, of grey church towers and Georgian mansions calmly classic, all in harmony with the natural scene. If this quietness of the senses be broken, as by buildings of harsh form or stirring colour, or by clatter of mechanical noise, there is a loss of happiness out of all proportion to the material discomfort, for the mind begins to pay attention to imperfections instead of dwelling upon an ideal, and we no longer live in Arcadia."[1]

SOME MONTHS ago Professor Abercrombie and Mr. Bertrand F. Brueton completed one of the best Regional Planning Reports which have hitherto appeared.[2] It deals with a tract of country which includes every characteristic of the English countryside, and, consequently, the work of the survey, the authors' advice as to preservation of both natural beauty, that resulting from the architecture of the past, and the exposition of their views with regard to future development, are of more than local importance. They crystallise certain well-founded general aspirations common to all those who wish to preserve the beauty of our country, our villages, and our old towns, into a series of recommendations, which might well be embodied in a national code for safeguarding places of national beauty, the preservation of appropriate and seemly buildings, and the well ordered development which we all desire for the future. The section of the Report which deals with the landscape survey is of particular interest, and may here be quoted as an example of its possible application to a national scheme:—

"This section of the Report . . . is concerned with the Landscape Survey only; and for this purpose this Region has been divided up into five types of area . . . . if the result of this rough division and verbal description is enough to remind the inhabitants of the extraordinarily varied landscape beauties which they possess and to make them better known to the world outside the Bristol and Bath Region, the Survey will have served its purpose. It will also . . . lead to the question . . . how these beauties can be retained by a community which has to work for its living, and to study true economy . . .

"The following are the five main divisions into which the countryside has been classified:—

"(1) The *low-lying land*, chiefly along the coast, and under the control of Commissioners of Sewers.

"(2) The *normal agricultural land*, which does not possess any striking landscape effects due either to varied contour or vegetation.

"(3) The land, largely agricultural, which, owing to contour, vegetation, water or other causes, is of *remarkable landscape value*.

"(4) The *wilder areas*, which owe much of their effect to remoteness, lofty elevations, or absence of human handiwork.

"(5) *Features of particular beauty or landscape importance*: these features are generally found embedded in areas 3 and 4, but occur also in certain cases in comparatively dull stretches of country (2). In selecting them, we have been guided not only by personal preference, but by the general consensus of opinion. It will usually be found that the general public has an unerring instinct for striking or astonishing beauties (and this extreme popularity of appreciation is often their undoing) whereas the quieter charms of landscapes pass unheeded (and are, for the opposite reason, liable to be defaced by lack of appreciation)."

This appears a quite adequate method to apply to the natural features on a national scale. Dealing with another important aspect of modern tendencies, under the heading of "Discordancies," the authors say that "broadly speaking it is possible to classify the discordancies into four main types. . . . (*a*) Things which may be necessary or desirable to have in the country, but which are discordant because they are badly done; (*b*) things which are good or beautiful in themselves, but which offend because they are in the wrong place; (*c*) discordancies which are caused by newness or rawness of the objects, but whose offence is of a temporary character; (*d*) unwarrantable intrusions which under no circumstances should be allowed, and which are incapable of being incorporated into the landscape scene."

This, again, is a useful classification and should be quite helpful as a guide to the ordinary man of what may give offence to his neighbours. Space does not permit of a reference to the other interesting suggestions and recommendations contained in the report, but it is worth noting that the importance of architectural control of buildings (especially in rural areas) is emphasised, "where the single building, whether attached to a village or standing alone . . . can damage a large surrounding area by its unsightliness." The cure is in the joint activities of voluntary panels of architects and the "Advisory Panel"—or tribunal—of the Bath Act, for, as it is observed, it is useless to expect positive results from the negative action of the "Advisory Panel" in rejecting unsuitable or ill-designed buildings, while the practical assistance of the voluntary panel will not be invited unless there is the possibility of veto by the "Advisory Panel" to back it up.

In the concluding section (dealing with the practical application of the regional plan) the importance of co-operation and what is called "persuasive planning" is given prominence, and some practical suggestions are made for the elimination of such mistakes in development as the "Ribbon" type (neatly defined as "sound development for the town run into a malignant growth over the country"), the conversion of useful and pleasant footpaths into roads, for the preservation of existing estates as private open spaces, and the placing of electric cables on skylines, etc.

The present time seems, as we have observed, appropriate for the application of these and similar methods of controlling development on a national scale. There is now a general consensus of opinion favourable to Town and Regional Planning, and there is, also, an urgent need that the various schemes already approved should be linked up to form a network covering the whole country, because in many places the road construction programme of the Ministry of Transport—urged forward by the need for providing even a partial solution of the unemployment problem—is outstripping the application of the Regional plans in those areas.

We believe then, and there are many who share our belief, that the time has come to institute a National Planning Scheme for the whole of England. Only those who have had experience of the difficulties of carrying a scheme from paper to actual concrete fact can fully appreciate the advantage which would result from the setting up of a department of the State to deal with what is a question of national importance.

It is really somewhat unreasonable to expect local authorities, composed of average citizens (who, moreover, have given an election pledge to study economy and keep down the rates) to display much enthusiasm in carrying out improvements, more especially in what are called the built-up areas, which entail considerable expenditure and where the fruits of such initiative may be long in maturing, so that others will reap and be praised where they have sown and been denounced as spendthrifts and visionaries.

Such bodies can only act when spurred on by public opinion. And this is a slow business, so that many golden opportunities are lost, and it may well happen that the whole purpose of a regional planning scheme is impaired and crippled before it can be made operative. We do not underestimate the public-spirited zeal which has been displayed by many local authorities and the surprising amount of work which has already been achieved in spite of great difficulties, much of which is due to the energy and helpfulness of Mr. Pepler and his fellow inspectors of the Ministry of Health. But we do confidently predict that when the provisions of the Town Planning Acts are extended to include built up areas, it will be necessary to increase the powers of the central executive in order to obtain the maximum results without losing the opportunity of giving useful employment to a large number of workless people.

And this can only be achieved by a national plan, co-ordinating existing proposals, filling in the gaps between them, and having power and money to see that, wherever practicable, these schemes are carried out without further delay. We do not suggest the creation of an army of new officials, which would be unnecessary, but merely that decisions should be taken by the head of a national department, and the necessary powers, men and money should be given to the county councils and local authorities to carry their schemes into immediate effect.

In other words, the whole question of planning for the future development of our country should be considered as a matter of urgent national importance, which indeed it is.

(1) *Dr. Vaughan Cornish.*

(2) *The Bristol and Bath District Regional Planning Scheme, by Professor P. Abercrombie and B. F. Brueton. University Press of Liverpool and Hodder & Stoughton, Ltd. 21/-, with map.*

NOTES

The Architect's Chance.

The architect does not receive much in the way of excuse for his difficulties from members of the general public. Therefore we thought it noteworthy when we read in the words of an estate agent that when the architect is employed to execute plans and elevations for the builder, somehow in the majority of cases it must be said there is very little stamp of his work when the houses are erected, for in very few cases is the architect left with a free hand. As the owners of the estate in question are hoping to get a type of house which is suggestive of the architect rather than the speculator, we can hope that such a worthy aim may succeed. Many competent architects are ready to co-operate with speculative builders in this respect.

Auckland Castle.

The utmost care is now being taken, with the help of the Ecclesiastical Commissioners, to preserve Auckland Castle, one of the least known but most historic buildings in the county of Durham. For at least 900 years it has been used as a residence of the Palatine Bishops. In the centre is the great kitchen and hall built by Bishop Bec. In its original state this room measured 76 feet long, 33 feet wide, and 20 feet high. It is now known as the State Room, and is used as a drawing-room. To the north is the magnificent banqueting hall erected by Bishop Pudsley about 1183. This was converted nearly 300 years ago into a Chapel. Experts state that "its main architectural features show it to be indubitably the work of the man who designed the Galilee Chapel of Durham Cathedral. . . . Rising from the junctions of the arches are the shafts, now supporting minstrel angels placed there by Bishop Lightfoot, from which probably rose the principal trusses for the thirteenth-century roof."

Garden Cities.

Architects, housing reformers, and garden city enthusiasts may feel some surprise should they read an amusing dialogue between two characters which appears in a contemporary, under the title "*Architectural Design and Construction*." We hear of a fictitious Society for the Suppression of the Garden City Movement, and the reasons stated for such a proposal are that the garden suburb does not represent the free architectural choice of Englishmen or foreigners, and that detached houses, or even detached blocks of houses, go to spoil the street arrangement and ruin any pleasant street facade. This amusing argument should open an interesting discussion, because Englishmen do not usually accept things unless they are desired; yet there has been no real outcry against garden suburbs, but much applause for their originators. No doubt the thoughts of suppression of Garden Cities really means the re-arranging of their streets, and perhaps some ideas have been obtained from the Continent, where we can see model settlements, laid out on novel lines and yet having interesting "modern" facades as well as ample air space both between streets and at the rear of buildings. We feel, however, that most citizens prefer their garden around the house, as is the way of our English garden suburbs. If our garden cities are to be materially altered, it is an important matter, because most smaller corporations follow the example of these reformers in their housing schemes.

Rural Crafts.

The revival of rural crafts in England owes a great deal to the Rural Industries Bureau. A new venture, on a small scale, but with much the same programme, has been inaugurated in Dublin where "Country Workers, Ltd," have opened a central depôt in St. Stephen's Green. The premises consist of a splendidly situated basement, well lighted from a large area, which possibly attracts more attention from the street than would the conventional ground floor. The aim has been to combine a picturesquely modern scheme of decoration with a country atmosphere calculated to show off to the best advantage a variety of country products—ironwork, pottery, tweeds, etc.—such as can only be marketed adequately through a central market. The scheme includes for the provision of luncheons and teas, so that visitors, while being free to inspect, have not that sense that they are expected necessarily to purchase anything. The scheme has been excellently carried out, and it is to be hoped that it will command the public attention that it deserves.

Slums and Sweepstakes.

We note that suggestions are abroad in the Irish Free State to the effect that when the hospitals have been relieved, further sweepstakes should be organised towards the abolition of slums. Opinion, even in Ireland, is sharply divided as to the ethics and desirability of obtaining money in this way, but if the principle is accepted in the case of hospitals, as it is in the Free State, it is hard to argue that slums, which are the principal cause of the necessity for hospitals, are less eligible than hospitals. Relative to population, the hospital and slum problems are as serious in the Free State as they are with us, but whereas in England the slum problem is far too large to be materially affected by the proceeds of sweepstakes, it is probable that Ireland, on its smaller scale, might very well succeed in breaking the back of her slum problem by this means. The question remains open as to whether

The Trocadero Cinema, Elephant and Castle, S.E.: A Doorway.

Mr George Coles, F.R.I.B.A. Architect.

Sketch of an old Tombstone.

or no, in the circumstances, the end justifies the means.

The Industrial Crisis.

UNDER this heading in our issue for December 12, we published a very incomplete and brief summary of a few of the points contained in a pamphlet on "Realities and Problems," recently issued by the Engineering and Allied Employers National Federation, and in connection with that note we have received a letter from Mr. Arthur Welford, which we have pleasure in publishing in this issue. In order to do justice to the pamphlet "Realities and Problems," which we have now before us, it is necessary to repeat that, as stated therein, our former note was founded only on the précis which appeared in *The Times*. With reference to Mr. Arthur Welford's letter, we may say that we are quite aware that there are two schools of thought on the subject of economy, one of which regards the object with which money is spent and considers that if unproductive expenditure exceeds productive expenditure then in the long run bankruptcy must supervene, and this school has one advantage because any private individual can prove the truth of it in connection with his own private affairs. The other school takes perhaps a wider view, and considers national expenditure as placed on a different basis from private expenditure in that any expenditure at all, whether on luxuries or otherwise, is good for trade and for the nation, and that we rather gather is the view our correspondent takes. The pamphlet we referred to takes the view that as a manufacturing country we must depend to a great extent on our export trade, and that, as we stated in our Note, if we are "reduced to trading and finance" alone, we cannot support our population, and that to maintain our trade in foreign markets the cost of production must be reduced. We cannot quite follow what our correspondent means when he says reducing costs of production in the engineering trade means less money spent by them in other trades, for if the reduction in costs leads to more business and greater profits the result must be the complete reverse. Moreover, a reduction in prices increases consumption. "Living beyond our means" is surely a relative expression. The owner of fields of ungotten coal might live beyond his means if he made no effort to get the coal, or expended his capital in luxuries so that he had no ready money left to work the coal; so although our resources as an Empire may be ample, we must set the right way to work to develop them. We prefer not to follow our correspondent into the gold question, for here we recognise that he is touching upon a subject not only outside the scope of our columns, but one upon which international opinion may soon have to be invited. The little pamphlet we referred to is printed at Broadway House, Tothill Street, Westminster, and possibly Mr. Welford would be interested in it, as our summary did not certainly do it justice.

Workmen's Compensation and Painters.

PAINTERS are finding the new Regulations, inevitable under Section 43 of the Workmen's Compensation Act of 1925, somewhat irksome. Builders, who have not already realised the significance of this section, would be well advised to study the provisions. Compensation is payable to any workman who is disabled by certain diseases, one of which is lead poisoning. The liability falls, in the first place, on the last employer by whom the man was engaged during the twelve months preceding disablement in the occupation to which the disease is due. It is provided, however, under the Act, that an employer may require a written statement from a workman before engagement that he has not previously suffered from lead poisoning. If later he contracts the disease, and it is proved that at the time of entering his employment he wilfully and falsely represented himself in writing as not having previously suffered from it, compensation is not payable. All builders will no doubt follow the lead of far-seeing local authorities and require all persons whom they employ, either as painters, or in any occupation in which lead poisoning may be contracted, to sign such a declaration.

Rottingdean Appellative.

LAST week a plan of this place appeared in our pages, supplementing an illustrated article published on the 5th inst. The topographic Saxon "Rotingedene" thus registered A.D. 1086 in the Domesday Book, was much more euphonious than the somewhat picturesque designation of "Rotyngedene," used in the fourteenth century. The earliest Parish Register extant is dated 1558 (in the Hundred of Younsmere, Rape of Lewes), recording the ultimate vernacular name of the village which has on occasion readily lent itself to some amusing dissimilitudes. One of such instances happens to be recorded in an outstanding and attractive book issued during the current season. "Between Ourselves," being the title of this charmingly written volume, by Mr. Seymour Hicks. He was intimately associated with Sir Beerbohm Tree, and so tells first hand the story about his friend, who was walking beside J. L. Toole's bath chair, while perambulating the Parade at Brighton, when that veteran comedian was accosted by a clergyman who informed Toole that he lived in Yorkshire, and was recuperating by the sea after a severe illness. When the cleric had gone his way, Tree asked Toole whom he was "I haven't the faintest idea," replied Toole, "but no doubt I met him in the North—probably a sick bishop." "Oh, no," said Tree, "much more likely a Rottingdean!"

Awarded R.A. Schools Landseer Prize and Silver Medal.

Model from the Antique.

By MISS MURIEL HILEY.

GENERAL NEWS

Professional Announcements.

Mr. Cyril A. Farey, A.R.I.B.A., has moved to 4, Bentinck-terrace, Albert-road, Regent's Park, N.W.8. Telephone : Primrose 3071.

On and after December 25 the office address of Mr. A. Carden Pool, quantity surveyor, of 104, High Holborn, W.C.1, will be 23, Ely-place, Holborn Circus, E.C.1. Telephone number : Holborn 8679.

The London Association of Master Decorators.

Specimens of work submitted by craftsmen and apprentices for the 1930 Competition, organised by the National Painters' and Decorators' Joint Education Committee of England and Wales, will be on exhibition in London at the L.C.C. School of Building, Ferndale-road, Brixton, S.W.4, from Tuesday-Friday, January 6-9, from 10 a.m. to 8 p.m. Admission is free.

Overseas Trade.

We have received from the Department of Overseas Trade copies of booklets containing hints for the guidance of commercial visitors to (*a*) Algeria, Tunis, Tripolitania and Cyrenaica, and (*b*) Egypt, which have been prepared from information furnished by His Majesty's Consular Officer in those countries. It is thought that the information will be of interest to firms who may be contemplating sending a representative to those markets and who are not familiar with local conditions. The Department's address is 35, Old Queen-street, S.W.1.

Rate of Interest on Housing, England.

The Housing (Rate of Interest) Order, 1930, dated November 14, 1930, made by the Minister of Health, with the approval of the Treasury, under section 18 of the Housing Act, 1930 (20 & 21 Geo. 5, c. 39), orders as follows :—

1. This order may be cited as the Housing (Rate of Interest) Order, 1930.

2. The rate of interest on expenses incurred by a local authority under section 18 of the Act and on any such expenses which are declared by order of the local authority made under subsection (5) of section 18 of the Act to be payable by instalments shall be the rate of five per cent. per annum.

A Slum Replacement.

The Nottingham City Corporation has already formulated a scheme for accommodating dispossessed tenants in part of the city's slum clearance programme. Narrow Marsh, Nottingham, has a reputation in the county of being an undesirable place for many reasons, and it is good news to hear that a clearance is to be effected and that a huge lodging house for 200 men is about to be erected. The structure will be steel framed and have four stories. There will be a separate cubicle for every man, and also large dining rooms, official quarters and laundries, bathrooms, and lockers where the separate bundles of each man can be deposited until he goes away.

Presentation to Mr. E. J. Brown.

At the conclusion of the Council meeting of the London Master Builders' Association on Thursday, the 18th instant, the President (Mr. A. B. H. Colls) said he had a very pleasant duty to perform, and it was to make a presentation to Mr. Ernest J. Brown, on behalf of his friends in the Association, in celebration of his seventieth birthday. Before making the presentation, which consisted of a silver tray with the signatures of the donors engraved thereon, a silver cigar-box and an ash-tray, the President referred in eloquent terms to the affection and esteem in which Mr. Brown is held by his friends in the Association, and paid high tribute to Mr. Brown's record of service to the building industry, a record of which, he said, any man might be proud.

The President was supported by Mr. P. C. Culver. The presentation was then made and the members of the Council signified their hearty endorsement of the remarks made by the President and Mr. Culver by rising to their feet and according to Mr. Brown, with utmost warmth, the time-honoured musical salutation.

Mr. Brown thanked the members of the Council and said he regretted that the depth of his feelings made it impossible for him just then to express his gratitude in the way he would wish to for the great kindness shown to him.

LOANS OF WORKS OF ART OVERSEAS

In a debate in the House of Lords, Lord Parmoor moved the second reading of the British Museum and National Gallery (Overseas Loans) Bill, which carries out the report of the Royal Commission appointed in July, 1927, presided over by Lord D'Abernon, which unanimously recommended that the Trustees of the British Museum and the National Gallery should be empowered to lend objects of art and pictures for exhibition in places outside Great Britain. It was important that the British position in the world of art should be better understood abroad. The Royal Commission had fully considered the risk of damage to the objects of art, and had reported that there was no evidence of damage of any real and lasting character having been done to pictures sent abroad under careful supervision. If there was risk, the risk would apply equally to pictures or objects of art painted or made by English artists as to those of foreign artists which were now located in England. It was a striking fact that, in our late international exhibitions, pictures and objects of art numbering over 100 had been sent to this country from eleven countries which were not the product of the art or artists of the countries concerned.

Lord Hanworth moved the rejection of the Bill. As Master of the Rolls, he said he was charged with the superintendence of the archives of the nation. He had also been authorised by the Standing Commitee of the Trustees of the British Museum to oppose the Bill. Although it had been pointed out to the Government that only two or three words were necessary to make the Bill satisfactory to the Museum Trustees, two months had passed without any assurance being forthcoming. For the purpose of reciprocity the Trustees were willing to let the Bill go through if the objects to be lent were limited to "objects representative of British arts and crafts!"

Lord Crawford, who supported Lord Hanworth, said it was commonly said that, in view of the wonderful generosity shown to us by foreign countries, we must reciprocate by sending our pictures abroad. But informed foreign opinion was by no means so friendly to those international exhibitions. Responsible custodians of national collections in several Continental countries were anxious that this country should take upon itself the responsibility of putting a check on these international exhibitions. Custodians of works of art were horrified last winter when they learned that the Leonardo da Vinci, with its precious cargo, was encountering heavy seas on her way to this country. Happily the ship arrived and returned safely, but he could never be a party to encouraging any other nation to take those risks. He did not think the proper compliment to pay to Italy or other countries was to lend them examples of their own art, but rather to send them examples illustrating British artistic supremacy from 1760 to the death of Turner.

Other peers criticised the Bill, and the debate was adjourned, Lord Hailsham warning the Government that if, when the debate was resumed, they were not able to meet the objections that had been raised, the second reading of the Bill would not be agreed to.

COMPETITION NEWS

Rye Harbour Lifeboat Disaster Memorial.

We are requested by the Public Trustee to announce to sculptors that full particulars and conditions of an open competition for a design for this Memorial (to be erected on the actual grave) can now be obtained on application to the Secretary of the Royal Society of British Sculptors at 6, Queen-square, Bloomsbury, W.C.1.

Proposed Clinic, Bermondsey.

At a meeting of the Bermondsey Borough Council on December 16, it was resolved, in connection with the appointment of an assessor for the proposed clinic in Tower Bridge-road, that Mr. E. Stanley Hall, M.A., F.R.I.B.A., be appointed in accordance with the regulations of the Royal Institute of British Architects to act as assessor in connection with the competition, and that the following persons be appointed to assist him in an advisory capacity :—Mr. H. F. T. Cooper, L.R.I.B.A., Architect's Department, London County Council; Dr. A. M. Hewat, M.D., Ch.B. (Edin.), Medical Officer's Department, London County Council; Dr. D. M. Connan, M.B., B.S., D.P.H., Medical Officer of Health, Bermondsey Borough Council. Details of the conditions were given in our issues for November 21 and October 31

Competition for Proposed Exhibition Stand.

A premium of £100 is offered for a preliminary design for a stand at the Building Trades Exhibition at Manchester. There will be four further premiums of £10 each. The competition is open to all practising architects and designers. The architect or designer whose drawing is selected will be awarded the £100 and will be required to supervise the erection of the stand. The assessors will be : Mr. Christian Barman, Editor the *Architect's Journal;* Mr. W. L. Wood, Editor the *Architect and Building News;* Professor A. E. Richardson, nominated by the Editor of *The Builder;* Mr. H. de C. Hastings, Editor the *Architectural Review;* and Mr. Henry Rutherford. The stand is to display "Venesta Plywood" and "Plymax." Conditions, details of the accommodation available and full particulars may be obtained from the Editor of *The Builder*, or direct from Venesta, Ltd., Vintry House, Queen-street-place, London, E.C.4. Designs must be sent in by Thursday, February 12, 1931.

COMPETITIONS OPEN.

	Particulars published in "Builder."	Sending in date.
Incorporated Association of Architects and Surveyors : Competition for model petrol-filling and service depot. Prizes of 50 gns., 20 gns. and 10 gns., besides prizes for laymen's suggestions. Messrs. A. W. S. Cross, E. H. Fryer and W. Groves, assessors	Aug. 22	Jan. 6, 1931
Proposed new Municipal Buildings, Coalville, for U.D.C. Premiums of £100, £50 and £25. Mr. Walter Brand, F.R.I.B.A., assessor. Open to Leicestershire architects. Conditions from the Clerk	Dec. 5	Jan. 9, 1931
New School at Seamer-road, for Scarborough Education Committee. Mr. Morris Thompson, F.R.I.B.A., is the assessor. Premiums of £100, £60 and £40. Conditions from Mr. R. Underwood, Director of Education, Huntriss-row. Dep. £1 1s.	Oct. 17	Jan. 17, 1931
Fire station, on site in Bethel-street, Norwich, for T.C. Limited to Norfolk architects. Conditions from Mr. Noel B. Rudd, Town Clerk, Guildhall, Norwich. Dep. £1 1s.	Oct. 3	Feb. 1, 1931
Proposed Medical Clinic, Tower Bridge-road, Bermondsey, S.E. Premiums of £250, £150 and £50. Conditions from Mr. E. Goff Clark, Town Clerk, Spa-road, S.E.16. Dep. £2 ...	Nov. 21 Oct. 31	

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

"The Industrial Crisis."

SIR,—I would like to send you some comment on your Notes of December 12, under the heading "The Industrial Crisis." Costs of production being reduced in the engineering trade means less money spent by them on the products of other trades. Rationalisation amounts to the same thing; it is an attempt to restrict production down to the level of consumption—which is too low already. Moreover, under the existing law of "surplus" production, the two never can meet, however low the production.

NATIONAL AND LOCAL EXTRAVAGANCE.—The nation and local authorities—that is to say, ourselves—compel us to spend a portion of our income instead of doing as we please with it, either in spending or investing. This cannot be waste, for spending stimulates trade. So-called economy in this form of expenditure results either in reduced trade and unemployment for the time being, or leaves matters just the same as before: it does not improve the situation at all.

Does the greatness of the nation depend on the continuance of our manufactures? I think it depends on the power of its people to acquire material things for their material welfare first, and so free them for "greatness." I cannot contemplate any "greatness" coming to a nation if reduced to "trading and finance," for finance would restrict trade even as it now restricts production, and being a trade in itself it would in time destroy itself.

"LIVING BEYOND ITS (THE NATION'S) MEANS."—The material resources of the Empire have hardly been scratched as yet. Our "means" are practically unlimited. We have the resources, the men, and the need, but we have not the "money," nor shall we have it until we understand that it must not be a trade in itself, but a means of getting all possible or needful production consumed.

May I quote Mr. Leslie Runciman, who is reported as speaking as principal guest at the Bristol Steamship Owners' Association banquet last week. The report says: "There was no shortage of anything in the world to-day. He was not at all sure it would not be a good thing to fill all the ships with these commodities and scuttle them in the Atlantic. . . . The people upon whom their censure must firmly and vigorously fall were the bankers. He had it on the authority of Sir Josiah Stamp that . . . . the principal cause (of the trouble) was gold."—Lloyd's List and Shipping Gazette, December 2.

ARTHUR WELFORD.

[See Editorial comment, page 1073.]

Council Houses.

SIR,—When a revue is called "Council Houses," one is apt to think that council houses are a joke. But housing of the people is a serious business, and should be tackled in a serious manner. Jokes relating to the thickness or otherwise of the walls generally bring down the house, and the joker is applauded. The ratepayers and taxpayers, however, who find the money for the building of houses for the people do not see the joke. Where the builders are paid to build a satisfactory house, there should be no cause for merriment.

The chief fault with council houses is that they are easily recognised from Land's End to John o' Groats as council houses. Mass production has cheapened the building of houses, and that, of course, is the main point for consideration in these depressed times. But a little variation could make a lot of difference, though why a person should not like it to be known that he is living in a council house passes the comprehension of reasonable folk. Beauty can be obtained just as easily as ugliness, and is no more expensive, yet the council houses proclaim their origin throughout the land. Comparison with the streets and terraces built by speculating builders prior to the War, with very few exceptions, gives a verdict in favour of to-day's council houses; and, from a sanitary point of view, there can be no doubt that the local authorities' schemes are the best. Defects, such as dry rot, shrinking doors and windows, were due to the fact that no seasoned timber was obtainable just after the War, and therefore houses had to be built with any material available. The barrack-like appearance of some estates certainly does not please the eye, but compares very favourably with the rows and rows of pre-War cottages in various parts.

Where, for instance, is the beauty in a row of thirty cottages all of the same design, such as were built in the pre-War style, with perhaps a sink and closet for two or three houses, and no bath or bathroom? To-day in practically every district there are council houses—well built, sanitary and with modern conveniences. What would the position have been had not the local authorities undertaken the duty of housing?

There remain yet some thousands of houses to be built before "halt" is cried, but it speaks well for the authorities concerned that they have made a determined effort to house the people properly in sanitary homes. Prices of material are still high and the cost of building is still too heavy, but, while so many of the population are living in two or three rooms, rented at a rental that would pay for the whole house, rates, taxes, and leave a profit of 50 per cent. for the landlord, houses must be built; and the local authorities, having done such good work in difficult times, are the proper authorities to build for the people. In a few years, with stability and sanitation as the guide, the population will be properly housed, and housing problems will no longer loom large in the public eye.

E. A. STEWART, M.R.S.I.,
Wardle U.D.C.

Cubist Architecture.

SIR,—I have read with great interest the article on the work of W. M. Dudok by Mr. J. N. Summerson, A.R.I.B.A., which appeared in your last issue. He produces some surprisingly ineffective arguments to support his admiration for what appear to be elementary types and features. Granted that the position of a flag pole is a matter of some importance in the composition of an elevation, does it really affect the status of a designer so very materially? "An aggregate of geometrical units" is no modern discovery, and to suggest that with a pleasing outline in composition the end of architecture is attained is surely somewhat childish. As composition, the work of Mr. Dudok is undoubtedly good, and certainly he will do finer things; but are we not in danger of overlooking the main factor in this cubist featureless modern development? It is certain that if we ever again attain to a former condition of Victorian prosperity as a nation we shall see a great revival in the use of decorative features.

It is also certain that such an era of prosperity will produce a rococo revival such as the country has never before seen. Our present generation, or at least certain sections of it, are receiving no training in real architectural detail, and therefore when the wave of prosperity comes it will be unable to produce really fine detail. We may therefore assume with considerable certainty that any detail that is produced by the successors of the cubists and modernists will be lacking in scholarship and real architectural distinction.

WILLIAM DAVIDSON.

Architects' (Registration) Bill.

SIR,—With reference to the above and a letter you published from Mr. Athoe, he speaks of "reckless statements" made by speakers regarding the Bill, but does not state what they were. Further, your correspondent can rest assured that any architect of standing will become "registered" at the first opportunity, for the same reason that he becomes a member of a professional body. I fail to see anything in the Bill about "pains," but can only assume that this is an affliction from which Mr. Athoe believes he himself will suffer. Regarding the suggestion that architects should make themselves acquainted with the composition of the Bill, does this not equally apply to him and his Council to follow the proceedings in the House, from which he and they will have seen that the title "Architect" could not be safeguarded? One thing more—I can assure your correspondent that a very large body of men (salaried men, too) see a move forward in the right direction under this Bill.

In conclusion, it is indeed a very sorry specimen of opposition that has emanated from what I presume to be an architectural body, but now I can quite understand why it took to the "air" at one of its recent functions.

L. A. F. IRELAND.

BURIED CATHEDRALS

MR. C. R. PEERS, Chief Inspector of Monuments under the Office of Works, in the course of a lantern lecture at the rooms of the Society of Antiquaries in Burlington House, described the known course of the history of the churches at York, from the wooden church built when Paulinus converted King Edwin at York in 627 to the rebuilding of the Minster in the fourteenth and fifteenth centuries. In removing part of the pavement of the crypt for the burial of Sir John Maxwell, a massive rubble construction extending 125 ft. east of the east face of Archbishop Thomas's transepts had been brought to light, with an apsidal east end on foundations 10 ft. wide. The total width of this construction was 64 ft. from north to south, and it was strengthened by bond timbers averaging 12 in. square, going the whole length of the foundation, and tied together at intervals by cross-timber.

The great length of this made it unlikely that it was Archbishop Thomas's choir; so long a choir without aisles was inconceivable in the eleventh century. Moreover, on the inner side of the north and south foundations walls 52 ft. long, 4 ft. 8 in. thick, and sometimes 10 ft. high extended beyond the west wall of the crypt as it existed to-day, with masonry completely different from Thomas's work. In successive rebuildings a great church often advanced eastwards, but here it was clear that the rebuilding of 1070 left a considerable part of an older building, or at least its site, unoccupied to the east of the new work. The natural explanation was that this was not the building which Thomas's church was meant to replace. The old church of Edwin and Wilfrid lay farther to the west on ground now occupied by the nave of the Minster. Following a practice of which evidence existed on several Saxon sites, a second church was constructed to the east of Edwin's and on the same axis. The foundations consequently were not those of the church restored by Aelbert, but of the new one he built, dating from about 770. We had no remains of such a large eighth-century church for comparison, and no historians to tell us the fate of the site between the eighth century and the Conquest.

The lecturer further described some new discoveries he had made in another church associated with St. Wilfrid—Ripon Cathedral, where the installation of heating pipes had laid bare a hitherto unknown foundation wall 9 ft. wide, apparently built between the destruction of St. Wilfrid's building in 948 and the rebuilding by Archbishop Roger in the twelfth century

HOME-MADE ORNAMENTAL CONCRETE

By MANNING ROBERTSON.

CONCRETE has forced its way through feats of engineering skill to works of architectural importance, but if it is to be welcomed in our home life it must show that it can also be intimate, since the new architecture, as expressed in its extreme form on the Continent, is not likely seriously to invade these islands. Centuries of small house work derived from the stone or brick unit, and a natural dislike of vast window openings, will preserve our innate conservatism, and those architects who are interested in developing the new medium must seek for opportunities to prove that concrete can be personal, comfortable, and not violently at variance with tradition. Mass concrete is depressing in wet weather and when bared of its shuttering its texture is usually harsh and displeasing. Experiment, therefore, should be directed towards mitigating these defects of texture and seeking such form and ornament as is natural and organic to the material.

Many architects who have theories to try out are hampered by a suspicion on the part of clients or a lack of opportunity for experiment. It is, however, often possible for the architect to run risks of failure on his own premises. The illustrations show some of the results of taking such risks at home, and represent entirely the handwork of the owner, the household staff, and, in the case of the plaques, of a friend on a visit.

FIG. 1.—CAT-OWL.

The fishing cabin (Fig. 7) contains living-room and bedroom, and is built of 12 in. by 6 in. by 5½ in. blocks, with a flat roof slightly cambered and averaging 5 in. thick, falling from front to back. The steel windows are flush with the front face and are protected by copper aprons covering the lintels, the copper surface shows the blue-green of cupric oxychloride as a surface film. The weather-vane (also home-made) is in gilt copper and depicts a fisherman catching the salmon of his dreams. The central panel is decorated symmetrically with faïence and ornamental concrete tiles with raised, incised, and mosaic patterns showing objects of the chase: fish, rabbit, golf ball, etc.; the "rock-faced" blocks and the course at window level are in buff concrete. The photograph illustrates a further use of concrete for forming retaining walls, which play a considerable part when immediately below a weir and with a river capable of rising 8 ft. in 24 hours. In such circumstances the foundation is, of course, all important, and in this instance the adjacent bed of the river is paved solid with concrete for a considerable distance.

FIG. 2.

The footbridge (Fig. 5) departs from the normal in that it has a parapet on one side only, thus obviating the jumbled effect inevitable when one parapet is seen through another. This idea was adopted on the reasonable assumption that people (even drunk people) do not deliberately walk into the water; they simply don't do it. The footpath itself is cantilevered on the beam of the parapet, and is 4 in. thick spanning 14 ft. The neutral axis of the beam is pierced by the three openings shown in the photograph, and the footpath is, of course, on the far side. The twelve central balusters are of cast iron, picked up from the scrap merchant, and the remainder is of concrete built up in pre-cast blocks. The whole is painted white.

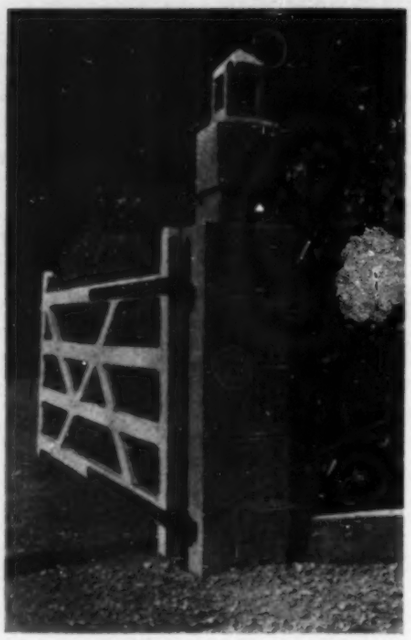


FIG. 3.—A GATE PIER.

FIG. 4.

Fig. 3 shows one of a pair of gate piers, built *à l'* Einstein, in that it is monolithic but yet built up in blocks. The blocks were cast with hollows some 6 in. square, filled with wet sand in the making, in such a way that when the blocks were laid a hollow core extended down the middle of the pier and into the foundations. This hollow was then grouted in with concrete and reinforced with steel rods. This method reduced the weight of the blocks and immensely strengthened the pier, and, further, to simplify raising the blocks, a 1½ in. hole was cast in each at right angles to the core, through which a bar could be inserted, the hole being subsequently filled in. The vases on top were cast in the same mould with a necking added, and a considerable number of similar vases, with drained hollows for filling with soil, were used by themselves for decorative effect in a formal garden. The little lanterns on top were pre-cast in pieces and fitted to receive lamps.

A still more intimate use of concrete is shown on Fig. 1. In this case the back of the owl was made by pouring wet concrete into a clay mould; a core of expanded metal lathing served to stiffen the body, and the face and front were moulded wet with a mason's trowel and a knife (both from a well-known store). The concrete paths forming the wheel bed have been highly successful in obviating the weed nuisance, and, being slightly lower than the lawn, allow the mowing machine to be run with one wheel on the concrete, thus doing away with the toil of edging.

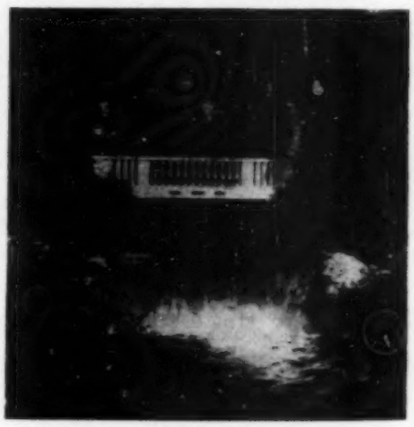


FIG. 5.—A CONCRETE FOOTBRIDGE.

The remaining figures illustrating the cat, squirrel and duck, show concrete plaques forming part of the wall decoration of a sitting-room loggia. The plaques were modelled semi-dry in a collapsible frame 1½ in. thick, and they measure 1 ft. 8½ in. by 1 ft. 3 in. They were designed and executed by Miss Ursula Livett with particular attention to the shadow effects due to side lighting, and also to variety in texture. The owl and the plaques dried out white because they were made of concrete with equal proportions of cement and slaked lime.

These examples represent only home-made

FIG. 6.

FIG. 7.—FISHING CABIN, HUNTINGTON CASTLE, CO. CARLOW, IRELAND.

amateur efforts, but they suggest that concrete, besides possessing immense possibilities as a medium for intimate architectural effects, and for colour experiment, whether in garden or loggia, presents a wide field for experiment at the hands of the sculptor. This extends to easily worked mural tablets in concrete churches; and by this means our graveyards might even be rescued from Italian marble.

SOCIETIES AND INSTITUTIONS

SOUTH-EASTERN SOCIETY OF ARCHITECTS.

A JOINT luncheon of the South-Eastern Society of Architects in alliance with the Canterbury Chapter of the R.I.B.A., and the Southern Counties Federation of Building Trade Employers was held recently at the County Hotel, Canterbury. During the proceedings an address was given by Major W. E. Watson, F.R.I.B.A., Barrister-at-Law, on "Architectural Agency and Award." Mr. C. F. J. Martindale, A.R.I.B.A., Chairman of the Canterbury Chapter, presided, and he was supported by Councillor A. W. Larkin (Chairman of the Southern Counties Federation of Building Trades Employers), and Messrs. R. G. Lovell, H. C. Ashenden, A. K. Mowll, J. H. S. Dahl, A. Cannon and H. Anderson. Others present included Messrs. E. Ranger, S. H. Head, J. R. Amos, D. S. Head, W. Bourne, H. Cook, J. Neaves, C. Chester, L. Denne, C. Jenner, S. Austin, A. W. Hammond, J. Barton, W. Bailey, E. Barber, A. Moody, R. H. Stevens, J. Archibald, E. R. Dunn, E. Wiltshier, — Messenger, R. Denne, H. Stockley, A. Bowles, H. Silverton, W. S. Cozens, O. Marx, A. H. Moat, E. J. Budds, W. Stebbing, E. Martin, H. Godden, J. Sharman, J. Tresize, W. Bishop, — Barker, G. Mills and W. E. Mills.

Mr. H. Campbell Ashenden, proposing "Prosperity to the Building Industry," said that it was to co-operation and interdependence of the whole of the industry that they must look for their future success.

Councillor A. W. Larkin, in reply, said it was very useful for architects and builders to meet together as they did that day and have a little cross-table talk about those matters which affected the industry. He believed the relationship, generally speaking, between the architects and builders was quite good and in every way desirable. He was glad that these overtures were taking place between the architect and builders. He would suggest to the architects that they should consider that builders who were in the Federation were really hall marked—men who were really worth considering and who were best qualified to carry out the work. The master builders had a great deal of negotiation to do one way and the other, and they had some anxiety as to how they were getting along with the operatives. As far as the master builders were concerned they desired in every possible way to consider the just claims of the operatives. At the present time they had some rather anxious considerations by reason of the fact that the operatives had, he thought unwisely, given notice to withdraw from the Regional Joint Council, which was connected with the governing of wages and conditions. He thought that the operatives would find in the long run that they had made a mistake and that they were a little far reaching in their demands. There had been a most excellent arrangement coming along of considering everything according to the cost of living, and the wages were fixed accordingly. Now the operatives wanted to stabilise the present rate of wage as the minimum; but the master builders could not agree to this straight away, for it was a matter that required a great deal of delicate negotiation, but he had no doubt that finally the matter would be settled without difficulty. There were one or two matters about which the builders would like the architects to be a little more considerate; for example, regarding bills of quantities, the provision of a reasonable form of contract which could be of service to the trade generally, and so on. He had no doubt that the architects would do all they could to help in such matters.

Referring to educational matters, the speaker said that as far as Kent was concerned everything possible was being done to stimulate interest in the technical classes connected with matters appertaining to the building industry—building construction in all its phases, planning, house decorating and so on. He believed employers generally were desirous of providing the number of apprentices that might be reasonably expected.

Mr. A. Cannon, in the unavoidable absence through illness of Mr. G. Browning, proposed "The South Eastern Society of Architects." Commenting on the fact that the names of Federated builders were starred in the architects' year book, Mr. Cannon said the builders would probably reciprocate by confining their architects to members of the Canterbury Chapter.

Mr. R. G. Lovell, Hon. General Secretary of the South-Eastern Society of Architects, in acknowledging, said while 90 per cent. of buildings at least were put up without any architectural supervision, it was important for the community that young men, or the builders of the future, should have the benefit of the knowledge which architects were having. In January there would be established in Thanet a course of joint instruction for young architects and builders. He was further advised that some similar effort would be made in Canterbury. Arrangements were made by the master builders to allow their employees time off to attend these classes, and in addition the Chapter paid travelling expenses where necessary.

A vote of thanks to the Chairman was proposed by Mr. Head, who said he thought that builders sometimes failed to realise the importance of contracts and the legal phraseology. They did not always realise the power they had because they did not study the document sufficiently.

The Chairman, in acknowledging, said he hoped that would not be the last time they had a joint luncheon. It was to the interest of both the builders and architects that they should meet more often, and talk over their little differences if they had any.

LIVERPOOL ARCHITECTURAL SOCIETY.

Lecturing recently before this Society, Mr. Darcy Braddell said "Mechanism" in its present form was too inhuman and graceless to last, but, none the less, was very important, because it made those brought up in the belief that the English tradition could never die look to their creed and wonder. Its main fault lay in that it was too brutally logical, and did not take into account that our present mode of life, ideas, and ideals were still those of mankind and not Robots, that grace and elegance were still wanted. Here, perhaps, the group that lay between the diehard traditionalist and copyist and the mildly enthusiastic mechanist might prove useful in the formation of a new style. English architectural tradition from Tudor times to the end of the nineteenth century, even though it borrowed freely from foreign sources, had always kept a very strong national feeling of its own. Nowadays, nationalism was rapidly giving way to internationalism, thanks to the ease of all forms of transport, whether of persons or ideas. Theories had no time to be absorbed and matured by any one nation as Dutch architecture was absorbed in England to be known as William and Mary. The life of all countries, excluding Asia, was daily becoming more and more alike, because people of all classes were beginning to want exactly the same things. Every big movement in art had been based on some universal desire. So to-day we had the birth of "Mechanism," because the world, particularly the young world, was passionately interested in mechanics. The moment man was really interested in a subject he became serious about it, and sooner or later understood it, and with understanding came beauty. Throughout the nineteenth century fashions in architecture, not styles, were made, because man did not understand the true functions of a machine. He tried to make it imitate work done by hand, and never grasped that it could have a life and meaning of its own. He was now beginning to realise this, and so a true new style was beginning to take shape.

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS.

AT a recent meeting of this Society, Mr. G. H. Widdows, F.R.I.B.A. (Architect to the Derby County Education Committee), in the course of a lecture on "Modern School Buildings," said his remarks would be confined to school architecture in Derbyshire, but he paid tribute to the fact that modern school planning received its impetus from Dr. George Read, of Staffordshire, after the passing of the 1902 Act. The speaker pointed out that at the time of the passing of the 1870 Act schools were of simple character and were either rectangular in plan or "T" or "L" shaped. Afterwards these buildings were added to, as increased accommodation was required, in such a way that there was no chance of through ventilation owing to the way the additions were made. After this came the central hall type of school, which, prior to the 1902 Act and for some time afterwards, was the standard school adopted by a large number of education authorities. In this type the rooms ventilated into the central hall, with the result that the foul air from one set of classrooms could be blown across the hall and enter the rooms on the other side.

After 1902, when the present education system took its birth, school hygiene received due consideration. It was then decided that if classrooms were to be healthy two outside walls should be open to the fresh air to secure proper ventilation, leaving the wind as the ventilating force. By adopting these principles, various arrangements of planning could be obtained and the grouping of classrooms round a courtyard was much to be preferred. The quadrangle should be laid out with flowers, grass and shrubs, and could be made interesting by the provision of fish ponds, sunken gardens, sun dials and the like.

The main factors in modern school planning centred round ventilation, lighting and heating, and the lecturer went on to describe the use of doors and windows and the types most suitable to ensure adequate ventilation. In the matter of lighting the best method was to have a continuous skylighting along the north, as this ensured adequate lighting and removed any chance of glare. If dormers were used on the south side they should not be large, otherwise the beneficial effect of the north light would be lost. The speaker next described the method of heating adopted in the open-air school, and gave reasons for warming the floors in such schools.

ILLUSTRATIONS

PLATES.

University of Western Australia.

We understand that steady progress is being made with the erection of these new buildings. Winthrop Hall, which we illustrated last week, is nearly up to its full height and should be finished in about five or six months' time. Several minor alterations have been made in the design, including the omission of the hoods over the large windows and a further reduction of 5 ft. in the height of the Hall itself, as a result of which the architrave of the main entablature sits on the keystones of the window arches and ties the whole building together. The scale of the tower has also been improved by reducing the scale of the top openings and leaving more blank wall. We give further illustrations of the scheme this week.

Messrs. Rodney H. Alsop, F.R.I.B.A., and Conrad H. Sayce are the architects.

The Trocadero Cinema, S.E.

Designed for Messrs. H. and G. Kinemas, Ltd., this cinema, which has two entrances, one on the New Kent Road side, and one facing the Elephant and Castle, has a capacity of 6,000, and is claimed to be the largest theatre in Europe. It is built on a triangular site, and its main elevation runs along the New Kent-road.

There are two circle waiting rooms, the main one being decorated in soft pastel shades, with large mirrors on the walls. The draperies and furnishings are of white, gold and silver, and concealed lighting is employed. The second waiting room is accommodated under the circle.

In the auditorium the predominating colour scheme is gold and old rose, and is based on the style of the Italian Renaissance. The auditorium has a carpet of burnt orange shade, and the seating is in old rose brocaded velvet. Lighting is supplied from the dome (where turquoise blue is introduced as a contrast to the soft chocolate brown and gold) from six pendant lamps, specially designed, and hanging from the outer circle of the dome, and from eight Italian metal and glass lamps hung from chains. The proscenium arch rises right to the roof in an unbroken curve, an upper and lower pelmet of rose and gold velour breaking the arch and masking the actual proscenium opening. The main tabs are of pure gold material, and the fire curtain carries an Italian garden scene. The stage has an apron front which brings the artistes into close proximity to the audience. The Wurlitzer organ chambers are accommodated in the decorative alcoves to the right and left of the proscenium arch. The top section of the organ lift is built on a turntable, so that the organist, instead of playing with his back to the audience when performing a solo, can face them from any angle. From floor to dome, the height of the auditorium is over 85 feet. A spot light room has been accommodated in the dome, so that unusual effects may be obtained on the stage below.

A first-aid room is situated at the back of the circle, and a fully qualified nurse is in charge throughout the performances. Eight large dressing rooms are provided, apart from the staff rooms, etc. There are two complete ventilating plants, accommodated in the main building. On the roof there will be tennis courts and a gymnasium for the staff. Four complete projection machines are installed as a precaution against breakdown.

The general contractors are Messrs. Thomas and Edge, Ltd., and the following are subcontractors:—Anselm Odling and Sons, Ltd., marble; H. N. Barnes, Ltd., frames and mirrors; Frank Burkitt, bio-box shutters, etc., stage counterweighting; British Vacuum Cleaner and Engineering Co., Ltd., vacuum cleaning plant; Burn Bros., Ltd., sewage pumps; Carter and Co. (London), Ltd., tiling, etc.; E. Coules and Son, lantern lights, cowls, etc.; Caston and Co., Ltd., metal grilles; General Electric Co., Ltd., electric light fittings; Garton and Thorne, Ltd., metal doors and grilles; John Gill (Contractors), Ltd., sheet steel piling; Hathern Station Brick and Terra Cotta Co., Ltd., Loughborough, terra cotta; W. James and Co., Ltd., metal windows; Pilchers, Ltd., paint; Gray and Son, lightning conductors; H. Lazarus and Son, Ltd., chairs and curtains; Le Grand, Sutcliffe and Gell, Ltd., borings; The Moray Engineering Co., iron handrailing; Medway's Safety Lift Co., passenger lift; South Metropolitan Gas Co., gas supply; Tees Side Bridge and Engineering Works, Ltd., steelwork; Samuel Wright and Co., Ltd., plasterwork; J. Jeffreys and Co., Ltd., heating and ventilating plant; W. J. Furse and Co. (London), Ltd., electric light installation; W. J. Furse and Co., Ltd., Nottingham, organ console lift; Parker, Winder and Achurch, ironmongery.

Mr. George Coles, F.R.I.B.A., is the architect, Mr. Basil Davis, the consulting electrical engineer, Mr. E. W. Cook, A.M.Inst.C.E., the consulting constructional engineer, and Mr. T. Oliver, the clerk of works.

A House at Gerrards Cross.

This is the architect's own house. The two principal reception rooms face due south and the house was planned to work in with an old kitchen garden with some old fruit trees, a 10-ft. holly hedge, etc. The elevations are in local multi-coloured bricks, and the tiles for tilelaying are genuine Tudor tiles from a tithe barn built in the reign of Henry VII. The roof tiles are hand-made tiles. Internally there are wainscot oak-boarded floors, and walls and ceiling are of parchment-colour stipple glaze. The lounge fireplace is of Hopton wood and black marble, and the dining-room fireplace of Skyros marble.

Mr. Robert G. Muir, F.R.I.B.A., is the architect.

R.I.B.A. Testimonies of Study.

We illustrate a set of Intermediate Examination Testimonies of Study submitted by Mr. K. H. Choate. The Board of Architectural Education wish it to be known that these Testimonies of Study are published for the guidance of students, not as perfect solutions of the subject, but to show the general standard of Testimonies of Study approved by the R.I.B.A.

UNEMPLOYMENT AND HOUSING

During a debate in the Commons on unemployment, Sir Tudor Walters, the Liberal member for Penryn and Falmouth, said that 143,731 persons in the building trade were unemployed. Those men could build 100,000 houses in 12 months, and another 100,000 men could be employed for the provision of material. If the Government would set to work now and build 100,000 houses, 250,000 of the unemployed would begin work. If to that were added the saving that would accrue in unemployment benefit, they would let the 100,000 houses at an economic rent. There were hundreds of architects and surveyors out of work who would tackle a scheme like that, and would not take many weeks to do it. He would also like to see some Department of the State undertake the building of 100,000 houses for the agricultural labourers. That would add another 100,000 to the people who could be employed on housing, making 350,000 in all. A national regional planning committee should also be set up at once to survey sites and make plans for future development.

Mr. Morrison, the Minister of Transport, who replied to the debate, said that the Government had thought that the proper course to adopt was to set up a body composed of recognised experts in the main classes of works which arose under town planning, as, for instance, roads, garden cities, satellite towns, general public works, and valuation, together with some leading representative men in local government. It was not proposed that State officials or politicians, as such, should serve on the committee. It would be rather of a technical and expert character. The Government proposed to attach to this committee as assessors expert representatives of the Government Departments concerned. The terms of reference to the committee, which the Government proposed to set up immediately, would be:—To consider the reports issued by the regional planning committees—many of which were, of course, in existence, or in process of being set up under existing legislation—and would recommend (*a*) what schemes of work could be put in hand with due regard to the return to the community for the expenditure incurred, the need of pressing forward with the work as expeditiously as possible, and of avoiding the delay of other works now being, or shortly to be, executed; and (*b*) what measures should be taken to secure that the works should be speedily carried out, with an estimate of the probable cost of the several schemes, the economic return, and the amount of employment likely to be afforded by them. Immediately that report was received, elements of considerable policy would obviously arise, which they would all have to consider, and on which the Government would come to the necessary conclusions. Immediate steps were being taken to appoint the committee and get it actively at work, although he could not give the names at present.

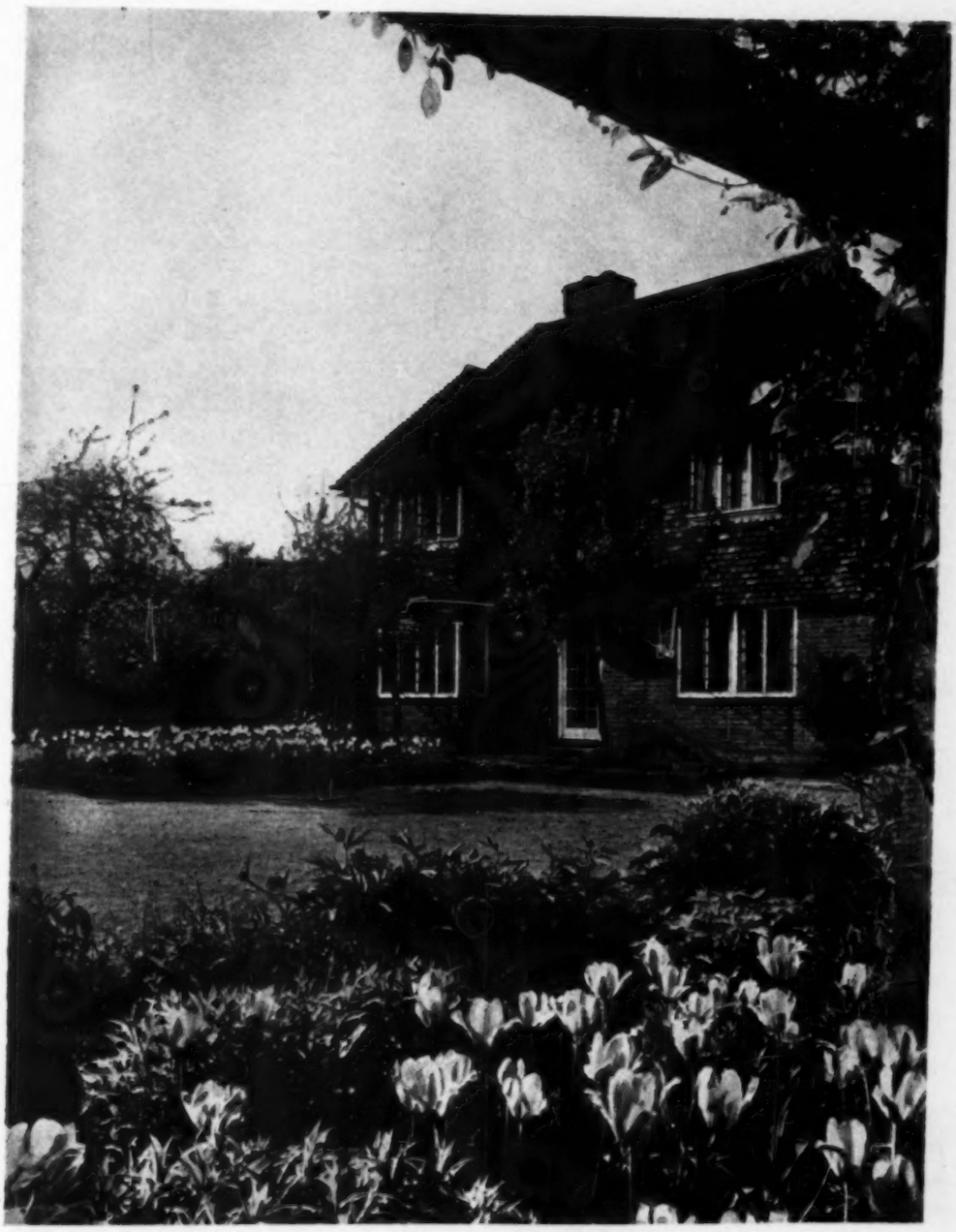
Later in the debate, Mr. Greenwood, the Minister of Health, said he differed fundamentally from the view that one of the real ways to deal with unemployment was a centralised housing policy. They could not, after building up the local authorities, take from them one of the big powers they possessed. This country had done more to deal with the housing situation since the war than any other country, and he would not agree to some new monopolistic enterprise that was going to over-ride the local democratic institutions.

Proposed Electricity Power Station, Fulham.

A statement signed by twenty learned societies and individuals has been sent by the London Society to the Electricity Commissioner, supporting the opposition to this proposed power station. The danger to buildings and to health are particularly stressed.

The Efficiency of Light Wells.

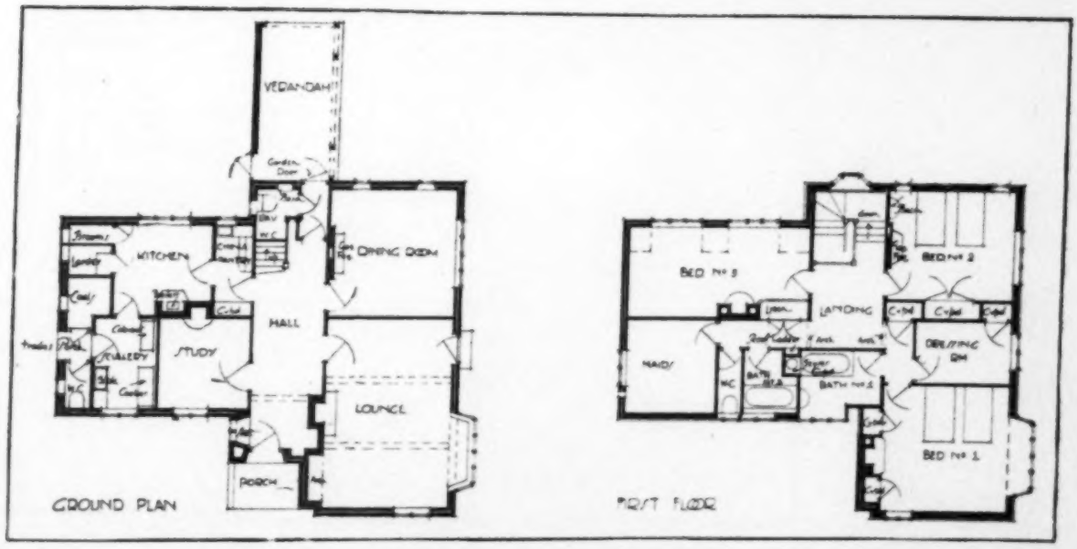
The ever-increasing value of land, particularly in cities has had the natural effect of causing architects to design higher and higher buildings and to make the utmost use of every square foot of available land. The proportions of internal light wells have in the past been governed very largely by current practice without any previous scientific data. The Illumination Research Committee of the Department of Scientific and Industrial Research has recently carried out an extensive investigation of the problem in an endeavour to supply architects with a more satisfactory basis for their designs. Model wells have been constructed and the amount of light reaching different levels of a well has been measured. This has been done for a large number of wells of different dimensions, coated with materials of various reflecting powers. It has been found possible to express all these results by means of a formula from which calculations can be made of the amount of light reaching any portion of a well of any given dimensions coated with a material of known reflecting power. Thus the effect of developing any given site in a particular way can be found out beforehand with much greater accuracy than before, and the amount of space to be devoted to light wells can therefore be decided upon with complete confidence that the anticipated results will be achieved when the building is erected. The results in detail are obtainable from H.M. Stationery Office in the form of Illumination Paper No. 11 (price 9d. net).



A House at Gerrards Cross : Garden Front.

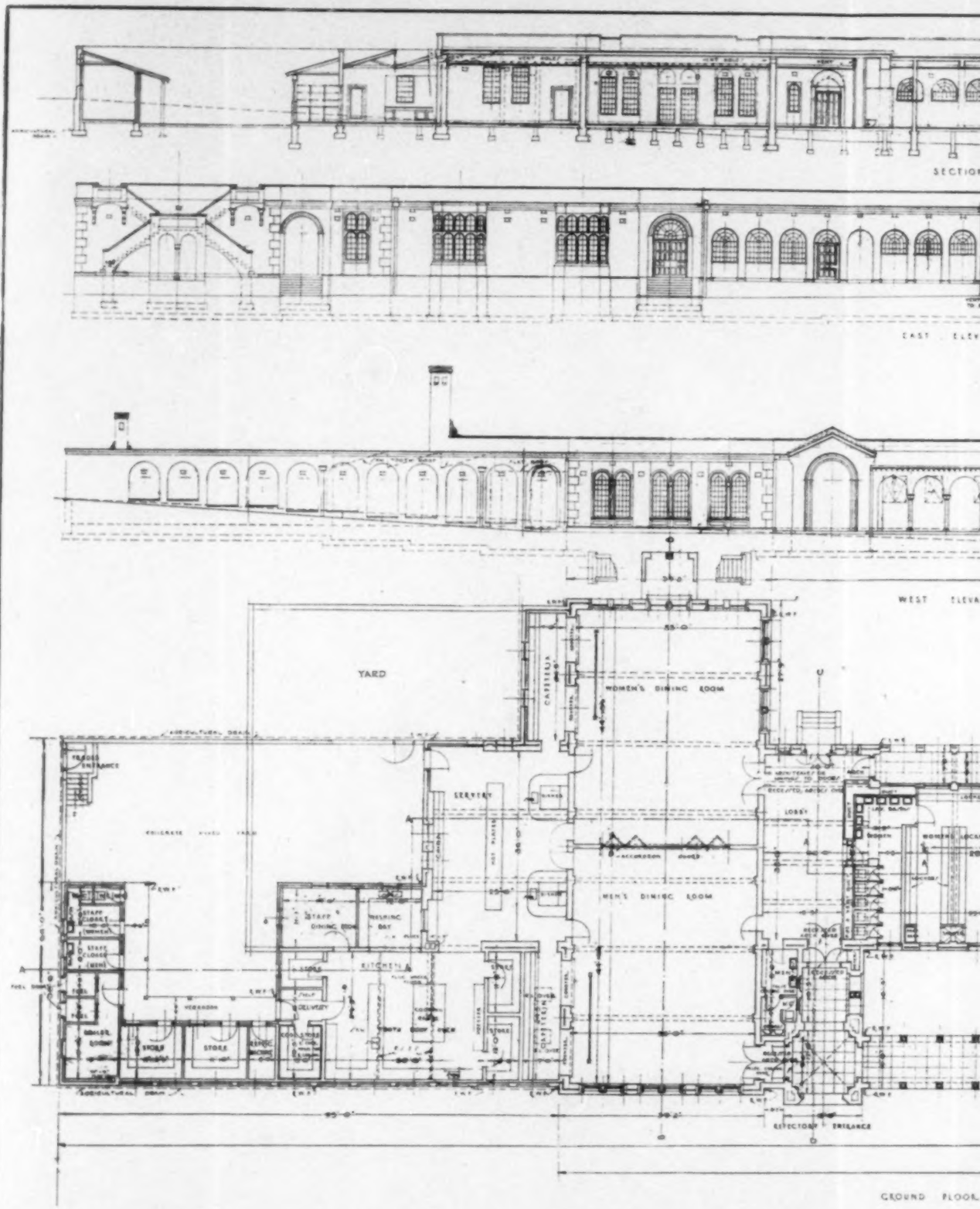
MR. ROBERT G. MUIR, F.R.I.B.A., Architect.

HALL.



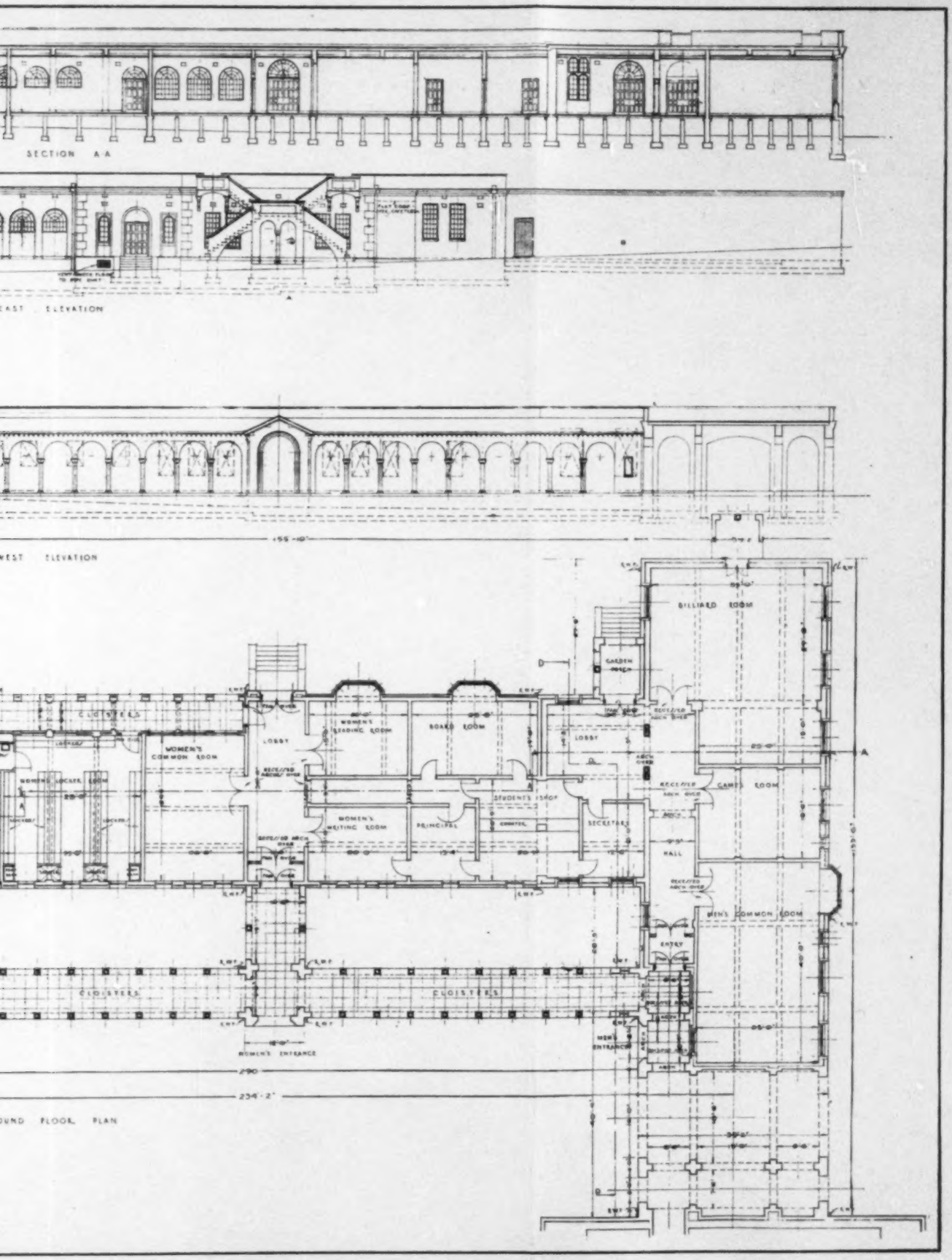
A House at Gerrards Cross.

MR. ROBERT G. MUIR, F.R.I.B.A., Architect.



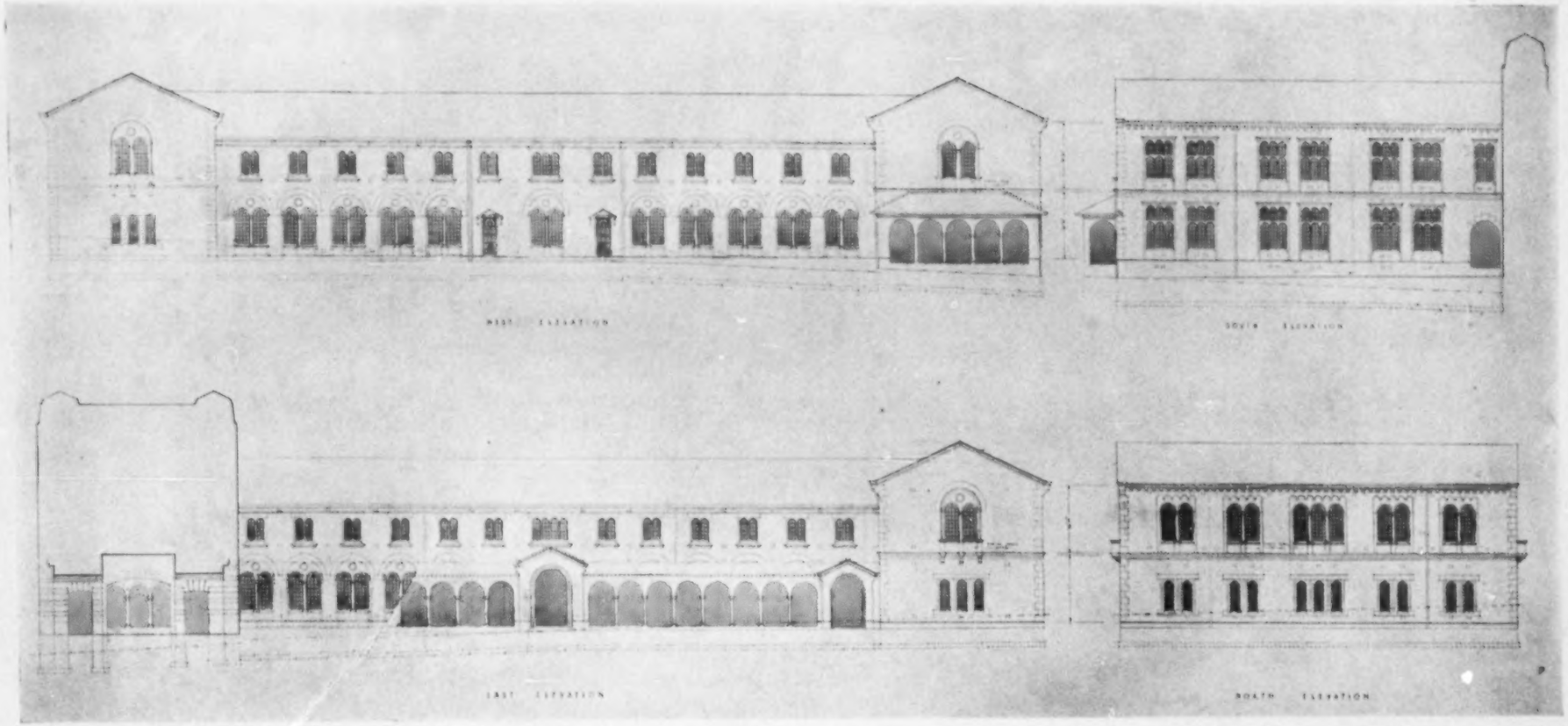
University of Western Australia, Crawley

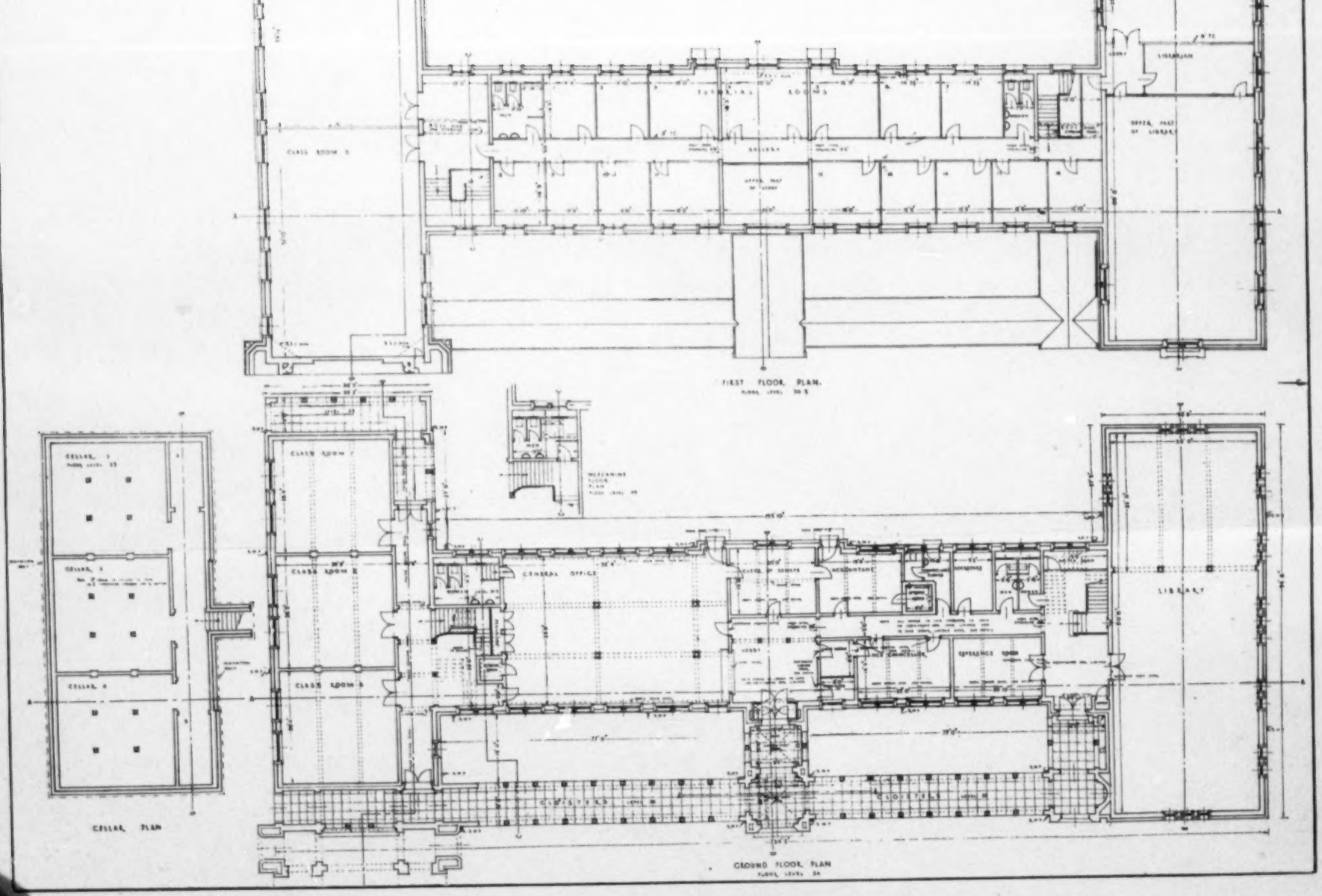
Messrs. Rodney H. Alsop, F.R.I.B.A., an



, Crawley, Perth: Hackett Hall and Guild.

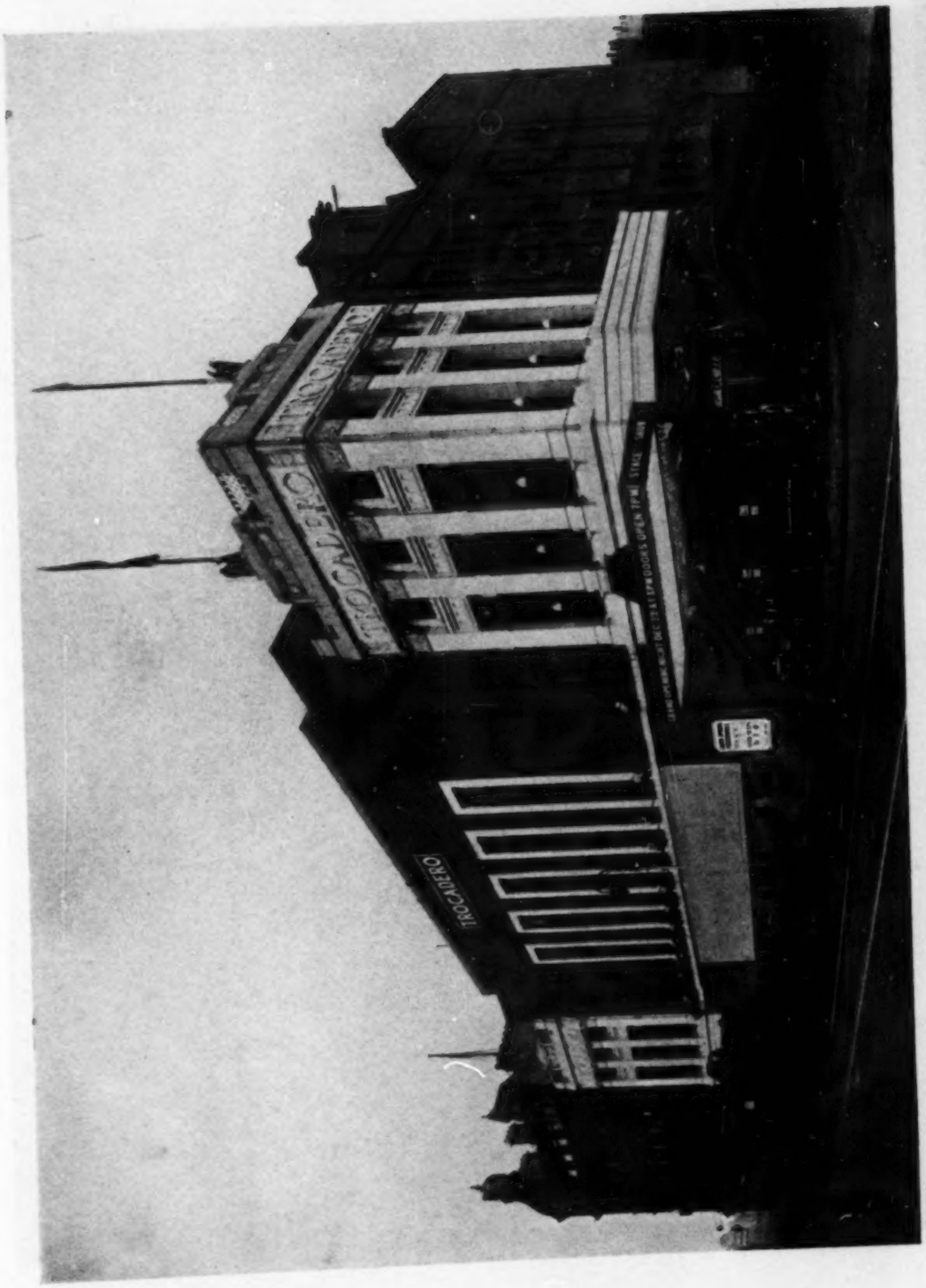
R.I.B.A., AND CONRAD H. SAYCE, Architects.





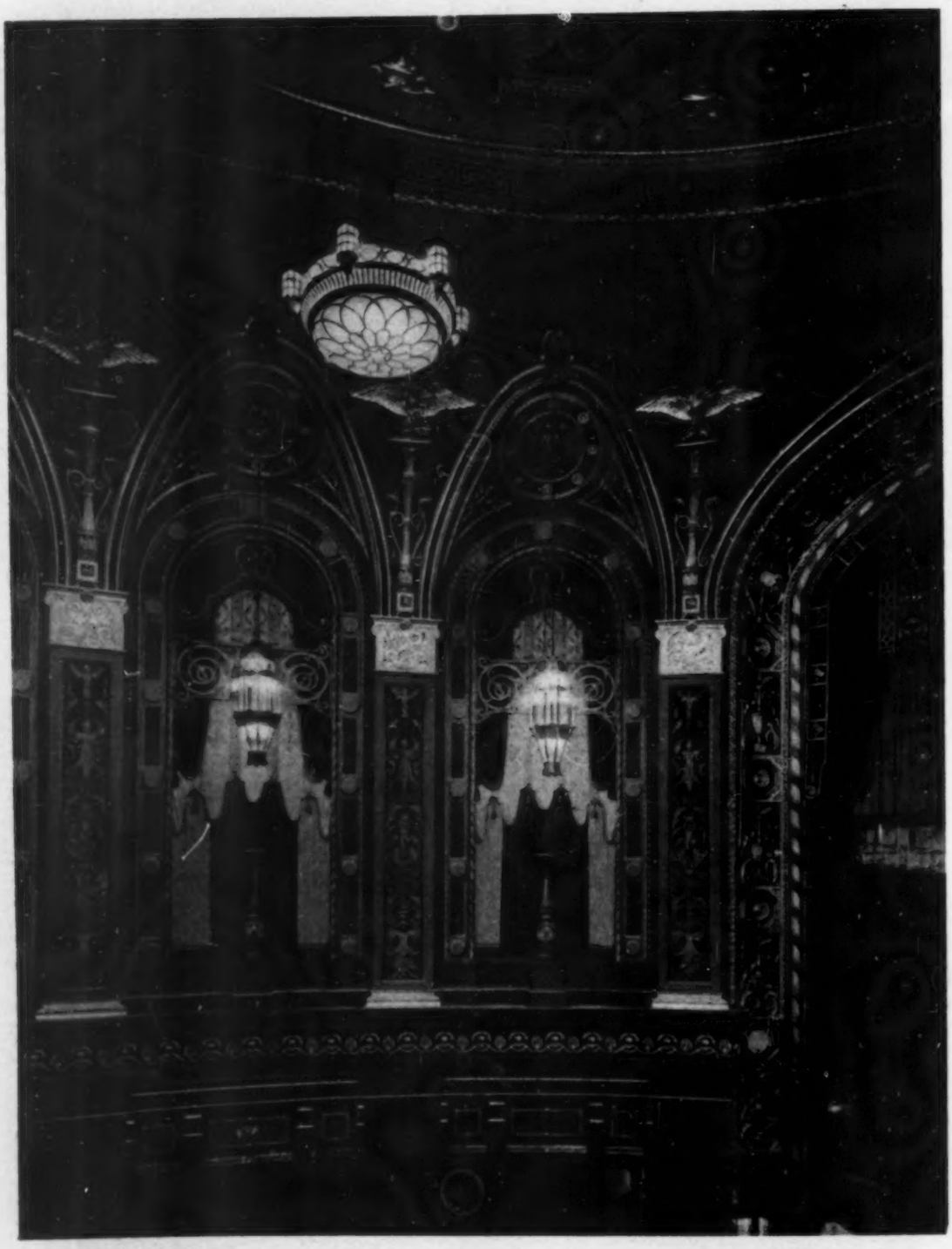
University of Western Australia, Crawley, Perth : Administration Block.

MESSRS. RODNEY H. ALSOP, F.R.I.B.A., AND CONRAD H. SAYCE, Architects.



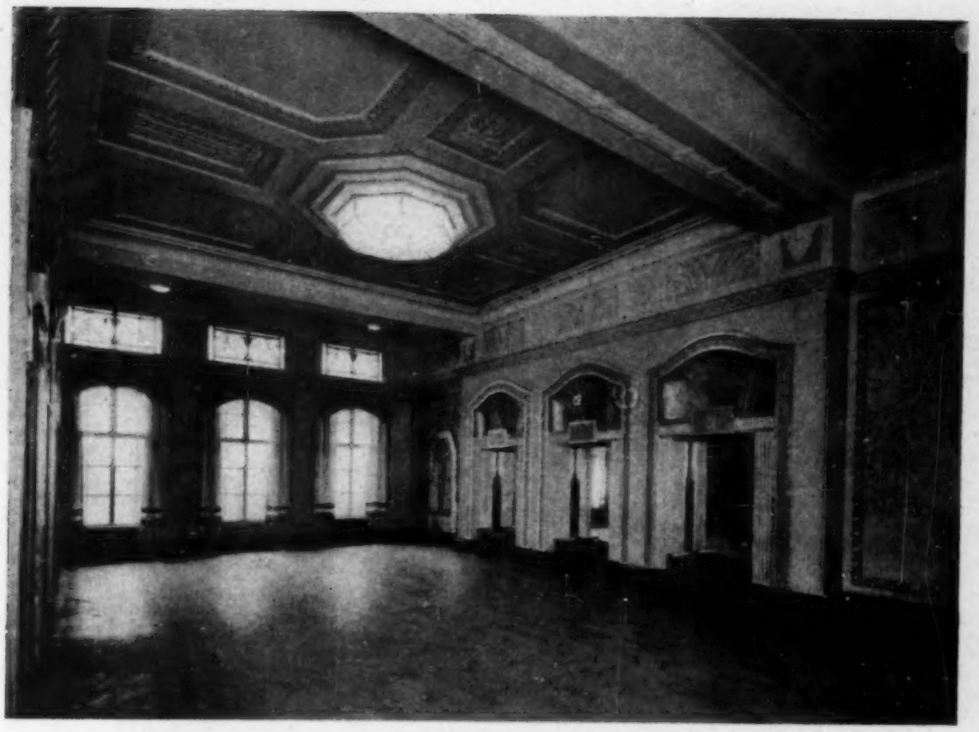
The Trocadero Cinema, Elephant and Castle, S.E.

Mr. George Coles, F.R.I.B.A., Architect.

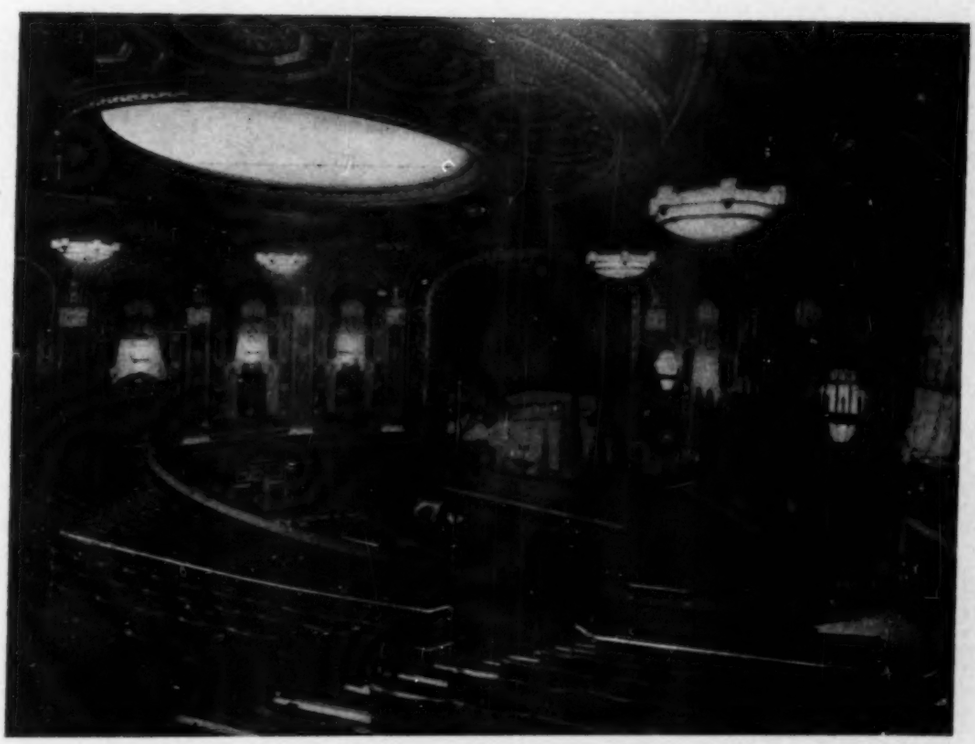


The Trocadero Cinema, Elephant and Castle, S.E.: Detail of Auditorium Wall.

MR. GEORGE COLES, F.R.I.B.A., Architect.



LOUNGE.



AUDITORIUM FROM CIRCLE

The Trocadero Cinema, Elephant and Castle, S.E.

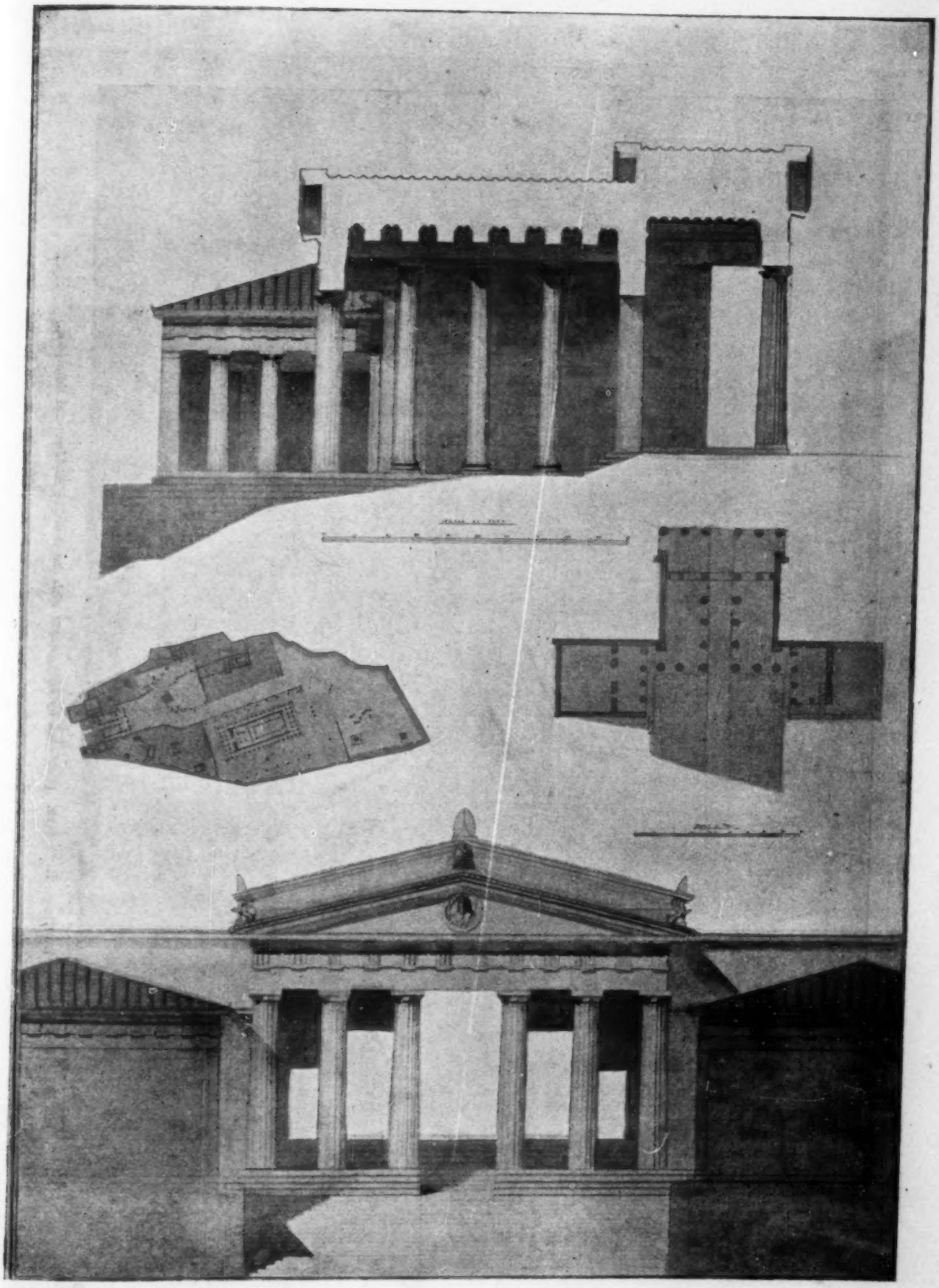
MR. GEORGE COLES, F.R.I.B.A., Architect.

VIEW ACROSS CIRCLE.

VIEW OF CIRCLE.

The Trocadero Cinema, Elephant and Castle, S.E.

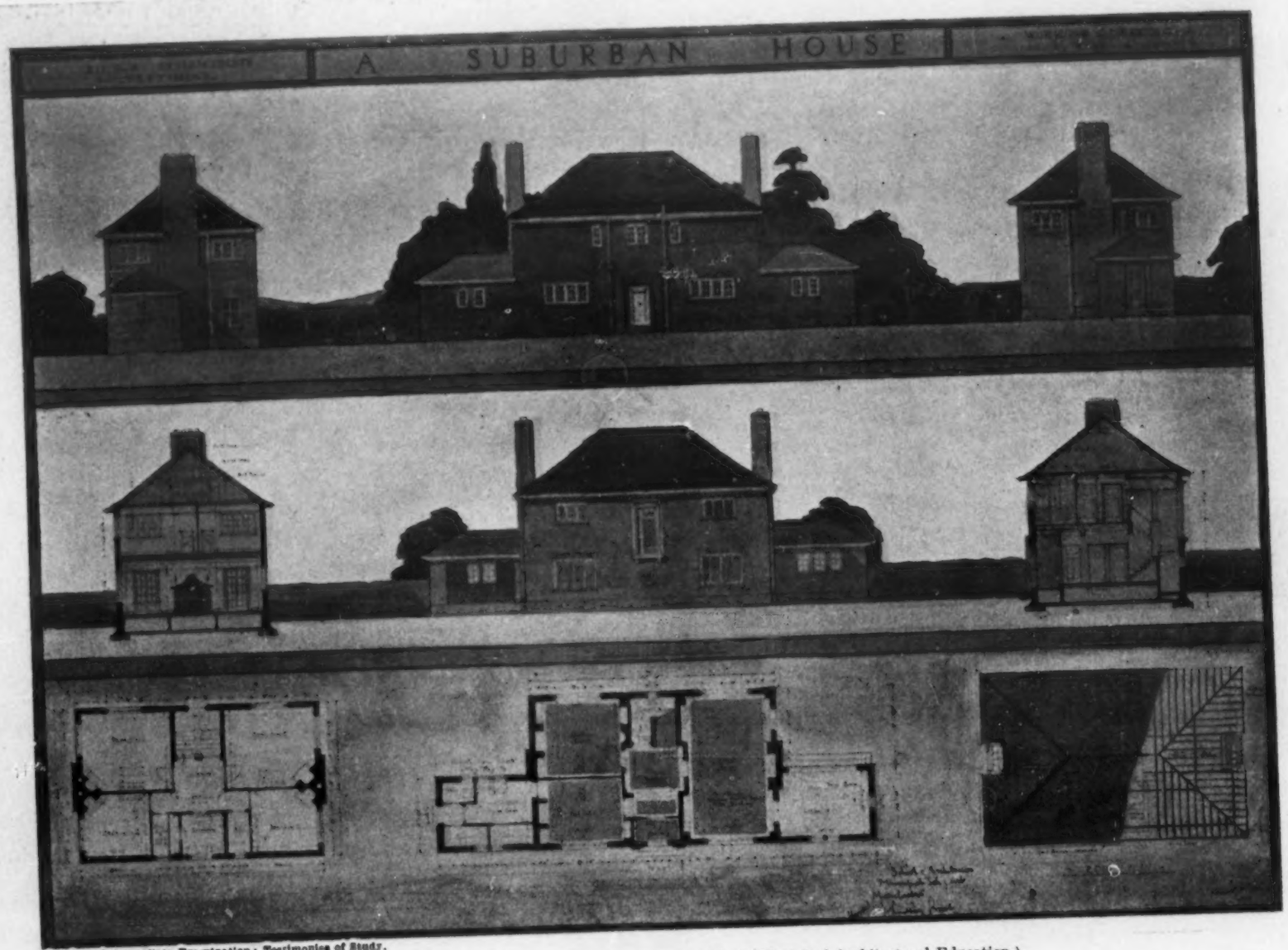
MR. GEORGE COLES, F.R.I.B.A., Architect.



R.I.B.A. Intermediate Examination: Testimonies of Study.

The Propylæ, Athens.

By Mr. K. H. Choate. (Published by arrangement with the Board of Architectural Education.)



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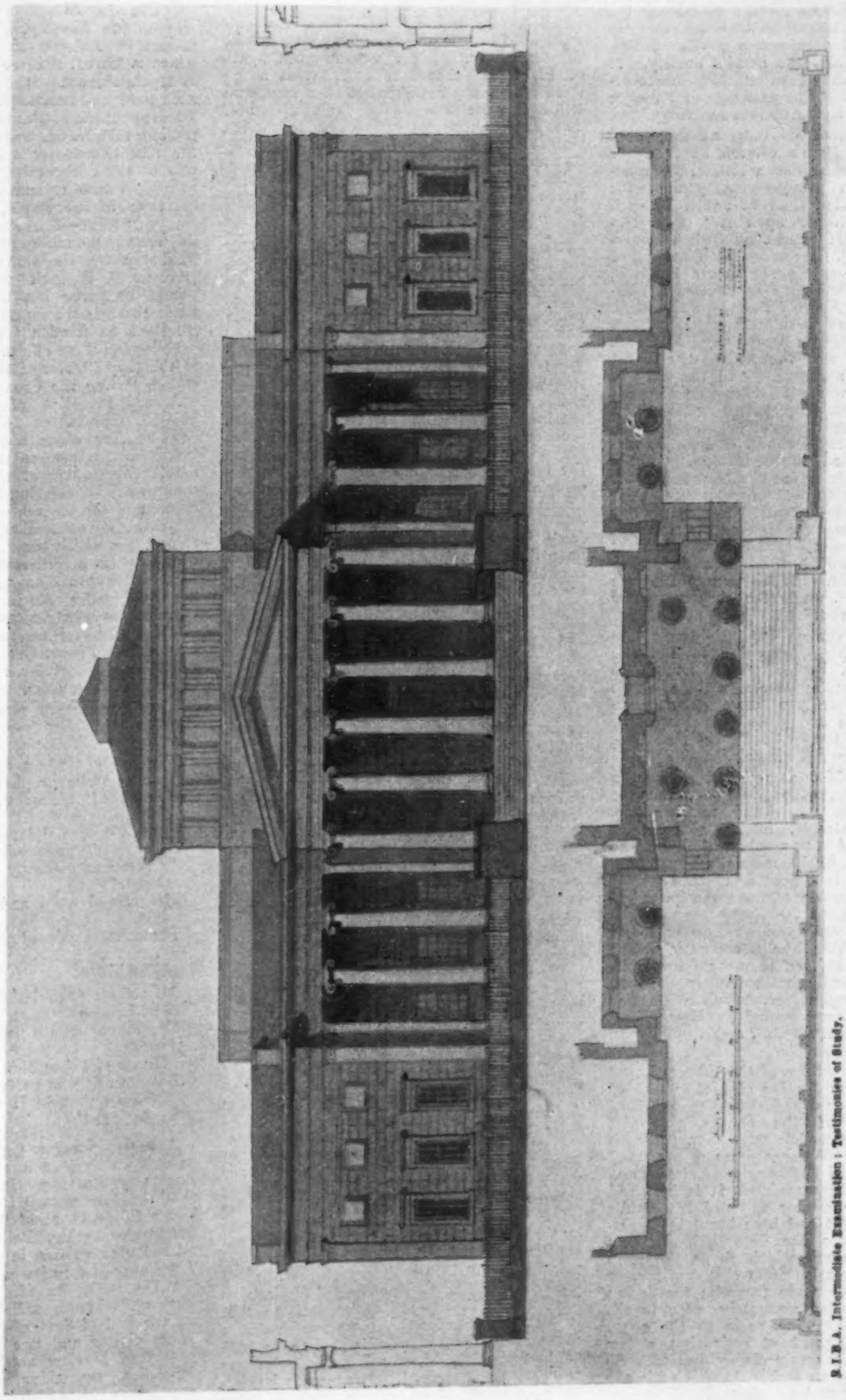


R.I.B.A. Intermediate Examination: Testimonies of Study.

The Manchester Art Gallery.

By Mr. K. H. Coates. (Published by arrangement with the Board of Architectural Education.)

OLD ST. PAUL'S.—X

By W. R. LETHABY.

REFORMATION, REPAIR AND FIRE.

After the Reformation the use of the Cathedral as a place of business probably increased. The nave became a popular promenade—Paul's Walk, the Duke's Gallery. It is bitterly observed in Earle's *Microcosmography*, 1628: "The best sign of a temple in it is that it is the thieves sanctuary."

"In like manner it is agreed that what day soever St. Paul's Church hath in the middle aisle of it neither a broker, a masterless man, or a pennyless companion, the Usurers of London shall be sworn by oath to bestow a steeple upon it" (*Pennyless Parliament*, 1608; quoted by Ordish *Shakespeare's London*). Much has been written of this time by Longman, Sparrow Simpson, Cunningham (*Dictionary of London*), Warton (*History of English Poetry*), and others. In the last-named work it is explained how "to dine with Duke Humphrey" came to be said of one who walked all day in St. Paul's without a dinner. "In the body of Old St. Paul's was a conspicuous monument of Sir John Beauchamp, buried in 1358. This by a vulgar mistake was at length called the tomb of Humphrey Duke of Gloucester, who was really buried in St. Albans. Of the humours of this famous ambulatory, the general rendezvous of lawyers and their clients, pickpockets, cheats, bucks, and many others who either for idleness or business found it convenient to frequent the most fashionable crowd in London, a more particular description may be seen in Decker's *Dead Terme* . . . under the chapter *Paules Steeples Complaint*."

There was a custom for "sightseers" to climb the steeple. According to Decker's *Hornbook*, 1609, people "paid tribute to the top of Paul's steeple with a single penny. . . . Before you come down again draw your knife and grave your name . . . and indeed the top of Paul's contains more names than Stow's Chronicle."

In the year 1600 a performing horse, a middle-sized bay, called Morocco, and the property of Banks, a vintner in Cheapside, ascended the steeple, to the delight, as Decker said, of a "number of asses who brayed below." Shakespeare alludes to "the dancing horse" in "Love's Labour Lost."

A slight suggestion of what the Cathedral must have been to the people even at the end of the sixteenth century may be found in a tract of 1613. The reference is to one who "did kneel down to prayers in Paul's and leave a handbasket carelessly by with capons legs hanging out, which a Cheater hath cunningly come behind the Orisant and stolen away." (Hazlitt's *Fairy Mythology*.)

Repairs.

After the destruction of the spire and roof of the church by the fire of 1561, works of repair were at once undertaken as described by Dugdale. Of the steeple he says, "though divers models were then made, it was let alone." A large drawing preserved at the Society of Antiquaries is almost certainly one of these models. It is inscribed "A design for a new spire of St. Paul's Cathedral after it had been burnt by Lightning," and bears the date 1562. Hollar's view of the church which shows the spire must be a restoration from this drawing, or possibly a model made from it; the design seems to be copied accurately, even to the plain cross and flying eagle at the apex. The drawing is without scale, but a few tests show that it was probably drawn to the scale of 6 ft. to an inch. At this scale the tower would have been about 50 ft. square, and this is the dimension actually stated in an account regarding repairs to the stonework in 1608 printed by Malcolm. The restored leaded spire is shown as about 200 ft. high to the ball and 215 ft. to the top of the cross which was stout and plain. Above it was a large flying eagle. The base of the spire was well within the balustrade, thus allowing good room for passageway. It has openwork pinnacles, and between each pair in the centre of every side is a "dormer" with a niche containing a large gilt statue, the one shown being a well-designed figure of St. Paul. Above this dormer is a big clock dial in a panel about 12 ft. square, and still higher are several small gabled openings. The angle buttresses terminated below the cornice of the stone tower which at the top was an unbroken square.

Early in the seventeenth century large works of renewal and adornment were undertaken. An account printed by Malcolm of the year 1608 has already been referred to. Letters concerning levies for the repair of the church in 1634-1637 are preserved in the Stowe MSS. at the British Museum. An appeal by Laud to re-edify St. Paul's is printed in Mr. Francis Bickley's *An English Letter Book*.

At this time the church had not only suffered from violence and neglect, but the stonework was decayed from the atmospheric causes we know so well. Dugdale says that the heart of King James "was moved with such compassion to this decayed fabric that for prevention of its near approaching ruin (by the corroding quality of the coal smoke, especially in moist weather, whereunto it had been so long subject) considering within himself how vast the charge would be . . . he came in great state thither on horseback, upon Sunday, 26th of March, 1620. Where, alighting at the West door, having kneeled near the brazen pillar and prayed for good success to his pious intention, he was received under a canopy support by the Dean and Residentiaries . . . the whole company of Singing men going before." The two paragraphs which follow are condensed from Mundy's Stow, 1633.

"Sir Paul Pindar in the time of King James hath to the glory of God and the delight of all good Protestants, beautifully and bountefully repaired the stonework of the West front of the Chancel [screen], with curious statues of Kings and Bishops, founders and benefactors of the Fabric, and the inside with Angels and ornaments. He hath likewise repaired the wainscot of the Quire, gilded and painted; he hath also clothed the Quire and upper part of the Presbytery with fair Tapestry-hangings, whose example will, I hope, stir up other well-minded citizens to perform some bounty towards the same church.

We may not be unmindful of a very bountiful benevolence given by Master William Parker: . . . he hath given five hundred pounds, to be employed in the repairing of the Windows of Paul's church from the upper end of the stairs first entering the Quire, unto the upper end of the Church: by the order and direction of the Lord Mayor and the Aldermen."

Dr. Sparrow Simpson quotes from the continuation of Stow that when King James visited St. Paul's in 1620 he was taken to see "three great Windows newly glazed in rich colours with the story of St. Paul." He also refers to some details communicated to him by the late T. G. Jackson from the documents at Wadham College, which have since been printed in full in his history of that Oxford College. Mr. J. A. Knowles, of York, who has brought this to my notice, writes: "It is interesting to note that glass windows were being inserted in St. Paul's as late as 1619 or thereabouts. Thomas Langton, who was evidently a merchant adventurer who imported coloured glass, writing to the Warden of Wadham College in 1621 in order to recommend the young Bernard Van Ling, then newly arrived in this country from Emden in Germany, stated: 'I will let you have Collered Glasse out of that which I provided for Poules. . . . I dare to take it out without any offence to any, for I did send for the glasse upon my owne adventure.'"

The state of the church became a matter of increasing anxiety and national concern.

In a printed document entitled "His Majesty's Commission," etc., 1633, it was set out: "It cannot be without scandal to these times, in which God hath been pleased to guide the Church of England in the true ways of His Worship, if that beautiful Fabric should be suffered to fall to the ground, which is feared, if there be not a timely care of repair thereof." Collections were made in even small and remote places. In the Churchwardens' Book at Brede, Sussex, is a memorandum that 8s. 5d. was collected in 1633 "of the meaner sort for ability towards the repair of the Cathedral Church of St Paull" (*Times*, Correspondence). In the records of the town of Barnstaple, Devon, appears this entry: "Item.—There was collected in 1634 by the commissioners for the repairs of Paul's church the sum of £8 3s. 5d." At Devizes, in 1638, it was agreed that £20 should be given out of the Chamberlain's funds towards the repairing of the Church of St. Paule in London" (*Municipal Records*).

Following these efforts came a new chapter in the tragic history: the desecration of the church during the Cromwellian interregnum.

A representative of Genoa in London, 1651-65, reported in 1656 rumours that the Jews of Amsterdam had asked permission of Cromwell's government to form a settlement here, proposing great things in the way of commerce. "Offering also £200,000 on account of the Church of St. Paul, which is the cathedral of London but at present much ruined, the which they would repair at their own expense in order to inhabit it and turn part of it into a synagogue, for it is a building about half a mile in circumference and of extraordinary height. . . . The inclination of his Highness [Cromwell] has not yet been manifested (*Times*, October 20, 1926; on the following day similar rumours were quoted from English sources.

I must quote one more description of the church at this time from a MS. at the British Museum by W. Boghurst, 1666:—

"Was lately made a cursed abomination
Even like the prophet Daniel's desolation
No den of thieves was ere prophaned so high,
No stable sure did more neglected ly,
No cage of uncleane birds had such a nest
As this was made by draught of man and beast,
The carved wood and stone all down did goe,
The crosses, painted glass, and organs too."

The Final Fire.

After these degradations followed the Great Fire of London.

"The daring flames peep'd in and saw from far
The awful beauties of the sacred quire;
But since it was profan'd by Civil war,
Heaven thought it fit to have it purg'd by fire." *Dryden.*

A letter giving a vivid description of the calamity is printed in the Calendar of State Papers of the time. In this it is remarked that the Fire seemed that of the Last Day. For a full account of the Fire of London I must refer to Mr. Bell's special study, but an old note written in my copy of Howell's *Londinopolis* may be quoted here.

"The great fire of London began at one Farryner's house, a Baker in Pudding lane, on the 2nd of September, 1666, between the hours of one and two in the morning, and continued burning until the sixth of Sept. following, consuming, as by the Survey appears in print, 373 Acres within the Walls of the City of London, and 63 Acres 3 Roods without the Walls. There remains 75 Acres 3 Rood yet standing within the Walls unburnt. 89 Parish Churches besides Chapels burnt. And 11 within the Walls yet standing. Houses burnt 13,200.

By Jonas Moore
Ralph Gatrix } Surveyors.

Copy'd from a Manuscript account, which had been taken soon after the fire.—John Salter." [*c.* 1790]

The London that was ready to be burnt is described thus by Defoe: "Before the Fire of *London*, Anno 1666, the buildings looked as if they had been formed to make one general Bonfire, whenever any wicked Incendiaries should think fit to attempt it; for the streets were not only narrow and the Houses built with Timber, Lath and Plaster; but the Manner of Building in those Days, one Story projecting out beyond another, was such that in some narrow Streets the Houses almost touched one another at the Top; insomuch that it often happened that if an House was on Fire, the opposite House was in more Danger, according as the Wind stood, than the houses adjoining on either side. After the Fire much Ground was given up to enlarge the Streets; yet it is to be observed, that the old Houses stood generally upon more Ground, were much larger upon the Flat, and in many Places Gardens and large Yards were about them."

The burning of the Cathedral is well described by Thomas Vincent in *God's Terrible Judgments in the City by Plague and Fire.* "It was the 2nd of September, 1666, that the anger of the Lord was kindled against London and the fire began. . . . On Tuesday (the 4th) was the fire burning up the very bowels of London. . . . Now the fire gets into Blackfriars, and so continues by the water, and makes up towards St. Paul's Church on that side, and Cheapside fire besets the great church on this side, and the church though all of stone outward, though naked of houses about it, and though so high above all the buildings in the city, yet within a while doth yield to the violent assault of the conquering flames, and strangely takes fire the top: now the lead melts and runs down as if it had been snow before the sun; and the great beams and massy stones with a great noise fall on the pavement, and break through into Faith Church underneath; now great flakes of stone scale and peel off strangely from the side of the walls; the conqueror having got this high fort darts its flames round about. Now Paternoster-row, Newgate-market, the Old Bailey and Ludgate-hill have submitted themselves to the devouring fire, which with wonderful speed rusheth down the hill into Fleet-street" (Allen's *History of London*).

In Wren's report on the Church after the fire, he said: "What time and weather had left . . . of this great pile of St. Paul's the late calamity of fire hath so weakened and defaced that it now appears like some antique ruin . . . and to repair it sufficiently will be like mending *Argo navis*, scarce anything will at last be left of the old."

Resurgam.

Elmes tells a story of the rebuilding of the Cathedral thus: "Some time during the early parts of the work, when Sir Christopher was arranging and setting out the dimensions of the great cupola, an incident occurred which some superstitious observers regarded as a lucky omen. The architect had ordered a workman to bring him a flat stone, to use as a station; which when brought was found to be a fragment of a tombstone containing the only remaining word of an inscription in capital letters—RESURGAM. This has been asserted to have been the origin of the emblem—a phœnix on its fiery nest—sculptured by Cibber over the South Portico and

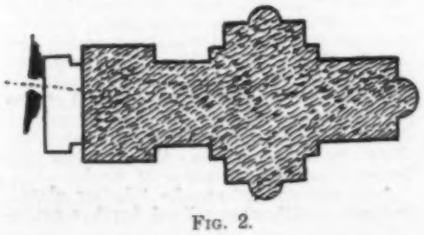


FIG. 2.

FIG. 1.

inscribed with the same word; but the rising again of the new City and cathedral from the conflagration was quite sufficient hint for the artist."

According to Dugdale, Bishop King's (1621) grave slab in the south aisle of the old choir was inscribed with this one word "according to his will." Dingley also gives a sketch of a coat-of-arms (paly a bend with a star in chief), and the comment: "This coat is on a gravestone in St. Faith's under Paule's without any inscription but only this (viz.), RESURGAM. Yet the party buried there will not be forgotten in regard to the coat-of-arm." (Fig. 1.)

It has often been observed that the long cross-form of Wren's plan was derived from the mediæval church, but much more than this was carried forward. So far as seemed possible similar dimensions were still maintained. The eastern apse nearly touches the line of the old east wall, and the extreme width across the present transepts, including the curved porticoes, is the same as the width at the old transepts. A great crypt was built again. The west end is a rehandling of inherited factors including Inigo's portico. Wren's upper story over the aisles followed the old triforium, and there is even a second tier of windows in the aisle walls, but they are disguised by imposing (in every sense) niches. The tall lantern over the dome with its big ball and cross emulated the old spire. Derivations in the interior have already been mentioned.

I would venture to plead for the provision at the Cathedral of more evidences of its antiquity and continuity. If, for instance, a line were laid down some 20 ft. from the N.W. corner of the portico steps and lettered "Here was the west door of the old Cathedral," and an axis line were drawn on the internal pavement, that would be something positive. Then a good plan of the old church might be hung up and an inscription giving chief facts in its history. (Fig. 2.)

Further Study.

It has been an interesting task and sad delight to study this greatest of English Cathedrals: to wonder at its immense spire and to wander in the dim nave and brilliantly lighted New Work. If time allowed of it I would like to turn these notes into a book which would be a worthier memorial of the great monument, but I can now only offer them as materials to serve towards that end. It is obvious that plenty of material exists wherewith to build it again on paper with trustworthy accuracy. The essential basis of such an undertaking must be accuracy of presentment.

Our knowledge of the old Metropolitan Cathedral might at once be carried much farther by an adequate publication of the ancient fragments stored in the present church. Several stones might doubtless be identified, and others would give the character of mouldings and details. A careful survey of the Chapter House foundations might be made by any student. A full record of what has been found from time to time by excavating is needed. I remember seeing a massive ancient wall lying at an angle to the north side of the nave of the existing church when a deep cavity was dug out here some twenty years ago. It must have been the north wall of the old nave, and it appeared to agree perfectly with the position of the nave in Penrose's plan. Many observations must have been made during recent works.

Again, a comparative study of other churches which may have influenced, or been influenced by, St. Paul's would help towards its mental rebuilding. The Metropolitan Cathedral would have had, we may suppose, an effect greater than any other. Many imitations might be traced and thus a light would be reflected back on the prototype.

Among the early churches in England which had an ambulatory around the apse must be mentioned St. Augustine's, Canterbury, begun *c.* 1080; Chichester, 1088; and Gloucester 1089.

Norwich was begun in 1096: "On Sep. 24, 1101, enough of the church (probably the presbytery and the three eastward chapels) was finished to allow of consecration." The crypt and lighted triforium at Gloucester especially should be compared with St. Paul's. The dominating influence of Winchester on our Cathedral has been mentioned already. The relation: St. Stephen's at Caen —Winchester—St. Paul's, is strict and direct. In the first the triforium story is very important with large windows as a second tier in the aisles; at Winchester the triforium windows are much smaller; and at St. Paul's they have been reduced to circles. In the interior of Winchester there is no string moulding at the sill of the triforium openings, nor was there at St. Paul's. Willis's suggestion that towers were intended to be built at the transept ends of Winchester may be doubted. The builder bishop of Winchester was related to the Conqueror and he doubtless obtained a master mason from Caen. Chichester Cathedral had three chapels opening from the ambulatory like Winchester and Gloucester, and—it is suggested—St. Paul's; it also had a second tier of windows in the aisles lighting the triforium stage. The nave clerestory and vault were erected about 1210 and were thus nearly contemporary with the similar parts of St. Paul's. Near the centre of the nave vault is the stone frame or curb of what must have been a horizontal opening of about 5 ft. by 3½ ft. It may hardly be doubted that this was provided for the purpose of censing the nave and this is a particularly interesting parallel to Paul's. The three-light traceried windows of the north aisle of the nave (*c.* 1270) may be compared with the aisle windows of the London church. Again, the isolated campanile at Chichester is the best existing parallel to that once in St. Paul's Churchyard. The great extension forming the New Work in the Metropolitan church must have been built in further emulation of the new Lady Chapel at Winchester erected early in the thirteenth century. We saw before that the internal length of St. Paul's was about 560 ft., and Winchester, known as our longest cathedral, is about the same length. I had felt doubtful about the priority, but Mr. Atkinson tells me that Willis made the curious mistake of saying that the Lady Chapel at Winchester was lengthened one bay in the fifteenth century. "Large windows were put in and the whole was vaulted but the structure is thirteenth century: the evidence is very clear." This Lady Chapel was two bays long with flank-

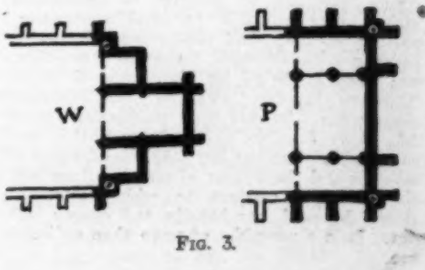


FIG. 3.

ing chapels of one bay; at St. Paul's the side chapels were of two bays. (Fig. 3.)

Westminster Abbey made contributions to the New Work at St. Paul's. The wall arcade and its relation to the windows above, and the vault over the Choir may be specially mentioned. Compare also the wall arcade and other features of St. Albans. Recently I have examined Exeter Cathedral from this point of view.

Exeter Cathedral as rebuilt from about 1270 must have been very much inspired by the New Work at Paul's. The great arcade of the interior has piers with sixteen shafts and mouldings which seem to be of the same character as those of St. Paul's, as we may judge from the fragment illustrated in Part V (Fig. 8). Compare sketch from Exeter (Fig. 4). The capitals at Exeter are moulded, and this may be taken as confirming Hollar's interior view as against Wren, who seems to indicate carving. The windows of the aisles fill out the bays, and in the eastern chapels there are wall arcades with cusping in the spandrels. In the main span the vaulting springs from near the level of sills of clerestory windows. In the interior are parapets having pierced quatrefoils, more

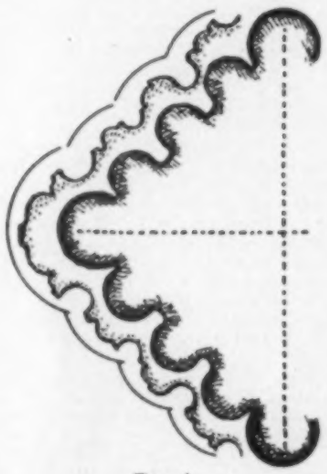


FIG. 4.

elaborate than the external ones of St. Paul's. On the exterior much seems to echo St. Paul's; the flying buttresses have wide haunches, there is a passage across the east gable, and several windows have three spherical triangles filling a circle, a type of tracery which we saw was specially characteristic of the London church. Derivations from St. Paul's at York have already been mentioned, but attention might be drawn to several details. For example, straight lines in the "decorated" tracery were probably imitated from the London Chapter House.

I end with another quotation from William Boghurst's poem. The old Cathedral was:

"A work so much stupendious that the people
Thought it would nere finisht be, therefore did call
Imperfect works 'the building of St. Paul.'
Search through the universe and you'l not see
Another pile so full of magestie."

(Concluded.)

"The Present Housing Law."

The plethora of legislation by which the whole question of housing is surrounded makes very valuable to local authorities, private builders, and others connected with housing a leaflet which, under the above title, has been published by Mr. Alfred T. Pike, Secretary, Garden Cities and Town Planning Association. In this little publication (price 6d., from 3, Gray's Inn-place, W.C.1) the essentials of housing law, the classification of schemes and the manner of carrying them out, the principal sections to which attention should be paid, are briefly and clearly laid out. It is a pamphlet of more than ordinary use.

THE DEVELOPMENT OF SOUTH ESSEX

A LECTURE on "South Essex: Its Docks, Industries, and Houses" was delivered before the London Society in the hall of the Royal Society of Arts, Adelphi, on Friday night, by Professor S. D. Adshead, F.R.I.B.A. Mr. E. M. Dence (Chairman of the Housing Committee, London County Council), was in the chair.

Essex, said the lecturer, was being transformed from a sparsely inhabited agricultural county into a vast area of factories and little houses. Dagenham and Becontree—old villages before the War—were now working-class residential suburbs with a population of about 100,000 inhabitants. Hornchurch, which was rapidly closing in upon Dagenham, had erected about 2,500 new houses in the last ten years. Upminster, but recently a small country town, was now a compact residential suburb, with a population of 3,600 people. Along the London, Midland and Scottish railway line, Southend, Romford, Brentwood and Shenfield had trebled their population in the last decade. Southend stretched on the East to Shoeburyness, and on the west in an almost unbroken continuity of bricks and mortar over an area which included Leigh, Benfleet, Hadleigh, and Thundersley. Canvey Island, which but a few years ago was a solitary marsh—a sanctuary for wildfowl and hares, a land saved from utter desolation by the presence of a few labourers' cottages, and with, at the entrance to a creek, a riverside public-house, the famous "Lobster Smack"—was now a seaside resort with over 1,000 houses, shops, buses, and the beginnings of a promenade. Tilbury, Grays, Purfleet, and Rainham had, each of them, spread from the river far back into the hinterland; indeed, so rapid had been the building-up of Essex that the efforts of local authorities to control development had been quite unavailing, and it might be said that, in so far as compliance with the normal conditions of sanitation and estate development were concerned, large tracts of Essex had got quite out of hand.

Town planning was the art and science which controlled and guided the confused efforts of single individuals, that the best interest both of the community and the individual would result. There were influences and tendencies in modern development that differed fundamentally from those that had obtained hitherto. We could not resist them. It would not be advisable to attempt to do so. We could only prepare our plans to suit the new order in a new way. A higher standard of living amongst the lower and middle classes, combined with increased facilities for travelling, had during the present century been responsible for enticing thousands of enterprising people out of the solidly built-up residential areas of East London into the recesses of Essex along each of the several railway lines; and industries which until recently were confined to the London area had begun to appreciate the advantage of riverside sites. These two movements were not only quite new, but had no relation to each other.

The residential emigration had affected the development of the centre of Essex, where there were practically no industries whatever. The industrial emigration had affected the fringes of the river. For how long this separation of interests would last it was impossible to say. The industrial worker at the docks and at the Thames-side industries now lived either in London or in the immediate vicinity of his place of work, as, for instance, at Barking, Grays, and Tilbury. The resident of Hornchurch, of Upminster, and of Canvey Island had to-day no interest whatever in a Thames-side industry. This, however, was probably only a temporary condition. There was every reason to suppose that the people residing at Dagenham would, instead of going to and fro from London, work at industries along the river, and the same would probably apply to residents further east.

A very cursory examination of Canvey Island, Benfleet, Thundersley, Hadley, Laindon, South Dagenham, East Rainham and dozens of other places of such mushroom growth that they were without names, showed us that there was a very real difference between these very new places and the developments that had taken place nearer London and closely adjoining older residential areas, such as Barking, Upminster, Brentwood and Southend. The latter conformed generally to the conditions of suburban development, such as might be seen anywhere in any of the by-law built suburbs of London. The former, however, were more like pioneer camps in a new country that had come to be permanent settlements. They were without any kind of publicly attended-to system of sanitation: often they were dependent for their water upon wells or a common tap: their roads were unmade, and their little houses and bungalows were constructed of materials of the most flimsy kind. At the present moment they could not be said to be crowded together like the houses of East or West Ham or even Ilford. Each house stood detached on its own land. Generally the plots were wide, but if in some places they were narrow, they went a long way back. That kind of development was no doubt the result of the frightful overcrowding that occurred in the East End of London immediately after the War, the great increase in the number of pensioners and people of small, though regular, incomes, and to the fact that the highly organised operations of the speculative builder had almost ceased, and because if a new house was wanted it had to be erected by the local authority or by an amateur.

When he made, said the lecturer, his first surveys of Essex and saw those hundreds and hundreds of miles of unmade roads, those amateur-built houses and that entirely new departure in suburban development, he came to realise that there was something very real and natural at the back of it all that ought not to be entirely repressed. He realised that it was only the poor man's effort at Garden Suburb development—a departure, and a very legitimate departure, from the terraces and by-law rows of the more densely packed areas of East London. He realised that it would never do for these places to extend without the introduction of some system of refuse disposal, even though they had no drains. He also realised that, however interesting an amateur-built house was, it was usually a terrible abortion both from the point of view of appearance and construction. But it dawned upon him that provided there was plenty of ground around the house and that the communities making up this kind of development were prevented from becoming too dense or too large, there was no need to have more than 8-ft. concrete tracks as roads, and that possibly a very simple and economical system of local sewerage disposal would meet the case.

Turning to the industrial problem, the lecturer said that he had pointed out in his Regional Report that industries along the banks of the river were likely to penetrate the interior of Essex in peninsulas from wharves and docks, rather than in a continuous band. We had an indication of this kind in the industrial area of the Thames Land Company, which extended from between Grays and West Thurrock for four miles into the interior and across the Southend road. It was his view that, as far as possible, heavy industries should be confined to the low-lying land which lay between the Ripple-road and the river. An investigation into the places of work and the dwelling-places of those employed at the Docks and in the factories at Silvertown showed us that there was insufficient space there to accommodate the workers in houses close to their place of work.

As a matter of fact, the "better class" workers in Silvertown lived further north,

very largely in East Ham, travelling to and from their work either by bicycle, 'bus or tram.

It was obvious that proposals for housing the population near docks and industries in South Essex would be very much tied up with the question of the workers coming daily to their work by train from London. This was not desirable, and, as far as possible, it should be prevented, but whilst industries were developing, and whilst many industries might remove out of London to places like Dagenham Dock, many of the workers would for years come daily from London to these new areas further east. Whilst this diurnal train journey would have to have recognition, it could not be regarded as a policy to be encouraged; indeed as the development of the Thames Estuary proceeded, it would have to be discouraged in every way possible: thus the problem to be solved was to find sites for workers at a reasonable distance from, or in close proximity to, their work. Assuming that the river-side in South Essex were to develop as a densely-packed industrial area interspersed with accommodation roads and branch railways, and employing—as was now the case in regard to the S.X. Board Works, the Purfleet Wharf and Saw Mills, and the Anglo-American Oil Co., of Purfleet—approximately 23 hands per acre, then the industrial population employed along the banks of the river and spread over the industrial area (shown on the map in the Regional Report), which contained 17,000 acres of undeveloped land zoned for industrial development, would amount to 391,000 workers. Possibly 23 workers per acre was, taken all over, a low estimate of the density. It would appear that in the Ford works the density would be 80 per acre. But here we had an engineering works of approximately 300 acres solidly developed; a cement factory, for instance, was not likely to be so thickly manned with workers as a machine factory like that of Henry Ford; so that perhaps the figure of 23 workers per acre, which was a figure having reference to a group of different kinds of works, was the more correct one upon which to base calculations for the future. Thus, deducting housing accommodation for watchmen and others who must live in the area of the works, say 2 per cent., to provide houses for those whom it might be anticipated would be added to the existing number of workers when the whole of the industrial area indicated on the map in the Regional Report had been developed, accommodation for the following approximate number of workers would be required:—

From foregoing estimate ...	391,000
Less 2 per cent.	7,820
	383,180

In order to arrive at the approximate number of houses to be provided, the relation which the number of workers had to the houses required must now be considered. It was safe to assume that on an average there would be a proportion of four workers in every three houses, and if we were to allow a density of 12 houses to the acre, then we required one acre for every sixteen workers. Thus, if the whole working population was to amount to 383,180, the acreage of the residential area required to accommodate these workers would amount to the vast figure of approximately 24,000, to which should be added an area of, say, 6,000 acres for shops, public buildings, and the houses of those not working in the industrial area. Thus, the whole area required for residential purposes would amount to about 30,000 acres, or about 45 square miles.

It was an open question whether this accommodation should be provided by building two or more new towns, or by building small townships accommodating, say, 5,000 people each. Physical conditions, general convenience and certain unassailable questions of policy would, in any case, go far towards settling where the sites were to be. These considerations, together with the following, would be the factors that would have an important bearing on the question:—

1. All housing schemes should be reasonably near, if not in juxtaposition to, railway stations which provide train services to several peninsulas of industry and to London.

2. They must be within a short bus ride of a considerable area of industry, as well as in train connection with other industries at a greater distance away, and they must also, if possible, be within walking distance, say, not more than one mile from the nearest industrial area.

3. As far as possible, they must be close to, though not on, main roads.

4. They should be in elevated positions unless, as is the case at Tilbury, important drainage schemes had been inaugurated and the land was open on three sides, one side being the sea.

It was with these points in view that the proposals outlined in his Regional Report had been indicated, but in putting them into execution there were the following unassailable questions of policy, already referred to, which would have to be considered:—

1. It is very difficult to start an entirely new housing area, and comparatively easy to extend an existing one.

2. Lack of capital in the initial stage of developing a new residential area will very often prevent the laying down of a good system of transport, which is the only way to make a new development "go."

The problem to be solved was how to deal with the housing of the operatives—as to whether they should be housed in several huge areas like Dagenham or Becontree: as to whether transport arrangements should be made to take a large proportion of them into London, or as to whether they should be accommodated in numerous small townships as reasonably near their place of work as the amenities of a residential area would permit. In the Report, the lecturer had made proposals for housing them in accordance with this last method. He had drawn a map which showed approximately nine different new townships bordering the industrial area and situated on comparatively high ground and with access to roads and railways in accordance with the conditions previously referred to.

In concluding, said the lecturer, he would like to say a word about the things in Essex which were of peculiar historical interest and of the amenities as to open spaces. A desperate effort was being made to preserve an open belt of land to the east of Dagenham. We all knew the difficulties, but he was pleased to be able to inform them that a park of 300 acres had already been secured immediately to the east of Dagenham. The credit for this was due to the Dagenham Council. He was afraid that he could not, under the present conditions of legislation and without any scheme for the redistribution of interests, forecast with any kind of certainty a possibility of securing the continuity of that open belt. It was not for lack of desire on the part of everyone concerned; the difficulty lay merely in the tremendous pressure of individual effort, which could not be controlled. There were proposals in the Regional Report for acquiring and preserving view points along the banks of the river: there were also proposals for acquiring by the different local authorities suitable recreative areas proportioned in area to the anticipated number of inhabitants having regard to the requirements of the Playing Fields Association; there were also proposals for acquiring several magnificent residential parks for which Essex was famous: Belhus Park within the area of the Thames Land Company had been scheduled as an open space, but the greatest triumph so far had been the decision of the Essex County Council to acquire a large open space on the summit of the Laindon Hills, and it was their intention as opportunity arose to extend this area so as to include about 400 acres as a reservation for the industrial worker.

THE COLLEGE OF ESTATE MANAGEMENT

LECTURING at the College of Estate Management, 35, Lincoln's Inn Fields, W.C.2, recently on the subject of the London Building Acts, with particular reference to the Consolidation Act of 1930, Mr. W. T. Creswell, barrister-at-law, especially stressed the difficulties arising through discretionary powers and the necessity for obtaining consents. He emphasised that the London Building Act, 1930, was wanting in real use to the surveyor. Certainly it should not be taken for granted that that Act had made everything plain. If anything, building laws in London were still in a somewhat chaotic state. The methods by which buildings were controlled differed entirely from those outside the metropolis, and there was not elsewhere anyone in a similar position to the district surveyor in London. There was no such thing outside London as payment of any kind in connection with approval of plans for buildings, whereas in London fees were laid down and payable to the district surveyor in respect of certain duties that he had to perform. The Minister of Health had very little to do with building law or building in London, though he was still, under the Act of 1930, the confirming authority in respect to any regulations or by-laws, especially regulations in connection with reinforced concrete construction. The Act was not operative in respect to Government buildings, railway companies' buildings, buildings belonging to the Ecclesiastical Commissioners or to the Inns of Court, while the Education Acts had almost entirely freed the construction of school buildings from any compliance with the London Building Acts.

Speaking generally, in London almost all building transactions were covered by statutory enactments, mostly exercised by the district surveyor, all building structure and work done on any building being subject to his supervision. The lecturer particularly referred to the necessity of obtaining the approval of the district surveyor to building in reinforced concrete or steel construction.

The most important change brought about by the London Building Act, 1930, was in connection with the embodiment of the London County Council General Powers Act, 1909, which Act for the first time recognised reinforced concrete as a building material and provided for buildings being built of iron and steel as a skeleton construction. It was then that building in London might be said to have been revolutionised, for to the Act of 1909 could be traced the present style of building, and the larger buildings rendered possible by reinforced concrete and steel construction. Throughout the London Building Act there was a continual note of discretionary powers, or waivers from regulations or the Act itself. Those discretionary powers were generally regarded as objectionable and as amounting to acknowledgment that in some respects, having regard to modern building science, the Act of 1930 was obsolete and should be brought into touch with modern requirements. Moreover, in many classes of buildings, especially those of the warehouse type, it was sometimes necessary to obtain the consent of two or more statutory authorities. Before a theatre could be built in London something like seven consents had to be obtained. Thus it would be appreciated that building owners and others were at great expense and that the procedure was exceedingly cumbersome. In fact, there was a tendency on the part of architects to forego obtaining consents and actually to commence work upon the land in the hope that eventually when the building was actually there consents would be forthcoming. An advisory council had come into being which, if its recommendations were made use of, would help to overcome some of the disadvantages re-enacted in the London Building Act, 1930.

London Building Act: Index.

An index to the London Building Act, 1930, by J. H. Pinnock, F.I.A.S., has been published, price 1s. 6d., by Messrs. P. S. King & Son, Ltd., Great Smith-street, S.W.1.

LEGAL SECTION

NOTES ON CURRENT CASES

RESTRICTIVE COVENANTS.

We may draw attention to the recent case, The Chatsworth Estates Company *v.* Fewell (*The Times*, November 20), because it illustrates the danger, even in these days of Housing Acts and Landlord and Tenant Acts, of ignoring restrictive covenants without taking steps to secure their relaxation or a consent to their breach, and the loss and expense that may thereby be incurred.

The action was brought to restrain the defendant from using a dwelling-house in breach of covenant otherwise than as a private dwelling-house. The defendant was a freeholder of a house subject to restrictive covenants contained in the conveyance that the premises should not, without consent, be used as a school, or for educational purposes, or for any trade or business, or otherwise than as a private dwelling-house, nor to permit anything which might be a nuisance or annoyance or injurious to the plaintiffs' adjoining property. Since April, 1928, the defendant had been receiving paying guests, and it was found by the Court that the house was a high-class house and well-managed, and there was no indication outside of its user, but that, nevertheless, it was a boarding-house and infringed the covenant. The defence was that the plaintiffs had lost any right to enforce the covenant, because (1) of a change in the general character of the neighbourhood whereby the object for which the covenant had been made had disappeared, and (2) because such change had been brought about by acts or omissions on the part of the plaintiffs or their predecessors in title. Evidence was given on behalf of the defendant that many flats and boarding-houses and schools had been erected in the area, some with licence from the plaintiffs, but others without such licence, but the evidence of the plaintiffs appears to have been that schools had always been allowed and as regards those there had been no change in the area, that boarding-houses had only been permitted in isolated instances, and that the licensing of flats was totally different from licensing boarding-houses.

From the judgment, as reported, it appears that the Court accepted the plaintiff's evidence as the findings were that the district was originally intended to be a residential district of good-class private houses, and although it had been altered by the erection of flats it still remained residential, as there was a clear distinction in that respect between flats and boarding-houses, and the conduct of the plaintiffs had not been such as to lead the defendant to believe that he was entitled to break his covenant, for to enable the Court to give relief it would have been necessary to show that there had been such a complete change in the neighbourhood that the covenant had become useless. An injunction was granted, but with the consent of the plaintiffs its operation was suspended until January 10. This case appears to fall within that class of covenants defined in Osborne *v.* Bradley (1903, 2 Ch. 446; *The Builder*, May 23, 1903), where the covenant is entered into simply for the vendor's own benefit, and where it was held that in the absence of a building scheme changes in the character of the neighbourhood, though allowed or connived at by the vendor, did not prevent him from enforcing the covenant. In the above case no question appears to have been raised in connection with the statutory provisions under which relief may be obtained from restrictive covenants, and a few observations thereon may be useful.

Thus the Housing Act, 1925, deals with the conversion of houses owing to changes in the character of the neighbourhood. Section 102 provides: "Where it is proved to the satisfaction of the County Court on an application by the local authority or any person interested in a house that owing to changes in the character of the neighbourhood in which the house is situate that the house cannot readily be let as a single tenement, but could readily be let for occupation if converted into two or more tenements," but such conversion is prohibited or restricted by the lease or other instrument, then the Court may vary the term of the lease or instrument so as to enable the house to be so converted.

Although the word "tenement" is used in this section, it has been held by the Court of Appeal in the case Johnston *v.* Maconochie (1921, 1 K.B. 417; *The Builder*, February 18, 1921) that the section is not confined to houses which, if converted into tenements, could readily be let for occupation by persons of the working classes, but that it is general in its operation, and applies where the house if converted could be let for occupation by persons of any class. It will be seen that under this section the proof as to change in the character of the neighbourhood is different from that laid down in Osborne *v.* Bradley as applying to cases apart from the statute that such a change must be proved that the covenant has become useless, as here the proof required is only that the change in the character of the neighbourhood is such that houses can no longer be readily let as single tenements, and this appears to emphasise the observation of the Court in the Chatsworth Estates that there is a distinction between flats and boarding houses, for under this section, on proof that single houses cannot readily be let, flats may be introduced into a neighbourhood from causes outside the control of the vendor of houses on his estate.

But there is another important statutory provision dealing with the release of covenants, viz., section 84 of the Law of Property Act, 1925. Sub-section (1) provides "The Authority hereinafter defined" (that is such one or more of the official arbitrators appointed for the purposes of the Acquisition of Land (Assessment of Compensation) Act, 1919, as may be selected by the Reference Committee under that Act, see section 40) "shall (without prejudice to any concurrent jurisdiction of the Court) have power from time to time on the application of any person interested in any freehold land affected by any restriction arising under covenant or otherwise as to the user thereof or the building thereon, by order wholly or partially to discharge or modify such restriction (subject or not to the payment by the applicant of compensation to any person suffering loss in consequence of the order), on being satisfied (*a*) that by reason of changes in the character of the property or neighbourhood, or other circumstances of the case which the authority may deem material, the restriction ought to be deemed obsolete, or that the continued existence thereof would impede the reasonable user of the land for public or private purposes without securing practical benefits to other persons, or, as the case may be, would, unless modified impede such user." "Land" is defined in section 205 as including land of any tenure, and amongst other things, buildings or parts of buildings whether the division is horizontal, vertical or made in any other way. By section 84, sub-section (12), it is provided that "where a term of more than 70 years is created in land (whether before or after the commencement of this Act), this section shall, after the expiration of 50 years of the term, apply to restrictions affecting such leasehold land in like manner as it would have applied had the land been freehold." By sub-section (5) any order made by the authority is subject to appeal to the court, and by sub-section (7) the section applies to restrictions whether subsisting at the commencement of the Act or imposed thereafter unless the restriction was imposed on the occasion of a disposition made gratuitously or for a nominal consideration for public purposes. Then by sub-section (9) it is provided, that apart from an original application to the authority made under sub-section (1), "where any proceedings by action or otherwise are taken to enforce a restrictive covenant, any person against whom the proceedings are taken may in such proceedings apply to the court for an order giving leave to apply to the authority under this section, and staying the proceedings in the meantime." But it is important to note that in the case Iveagh *v.* Harris (1929, 2 Ch. 142; *The Builder*, March 29, 1929) it was held that this sub-section does not apply where the action is brought to recover possession under a power of re-entry for breach of covenant, as such an action is not an action "to enforce a restrictive covenant" within the terms of the sub-section. In that case a dwelling-house had been demised to the defendant for a term of 94 years from June 24, 1872, and there was a covenant that the premises should not be used otherwise than as a private dwelling house, and the action was for possession for breach of this covenant and mesne profits. The application of the defendant under sub-section (9) was dismissed on the above ground.

It is, however, to be observed that neither in Osborne *v.* Bradley nor in the Chatsworth Estates Company was there any claim for possession, the claims apparently being merely for an injunction to prevent continuation of the breach, and in such actions it would appear the sub-section would apply.

With this complicated legislation available to afford relief from restrictive covenants, we think it will be seen that it is very desirable that persons should not act upon their own initiative in putting houses to prohibited uses, but should first take legal advice.

Assessment for Income Tax of Self-Contained Flats.

Under the above heading in our Legal Section for May 30, we referred to two cases in which the question was raised whether when an assessment had been made in the Metropolitan area at the last assessment, which was still in force, on the basis of each flat or tenement being a separate hereditament, a change in the method of assessment, by treating each block of flats as one dwelling-house, was valid. The importance of the point lay in the fact that under this latter system the deductions or allowances under the Income Tax Act, 1918, and the Finance Act, 1923, were less than if each flat were separately assessed, and also that no claim could be made in respect of voids. The two cases—Towle *v.* Improved Industrial Dwellings Co., Ltd., and Johnstone *v.* Consolidated London Properties, Ltd., were carried to the Court of Appeal, and are reported in *The Times*, November 18, and the decision of the Court below that the assessments were valid was confirmed. The point raised was highly technical, and we dealt with it at some length in our former article. The first of the two cases turned on the Rule 8 (*c*) of Part VII. in Schedule A of the Income Tax Act, 1918, which provides: "The assessment and charge shall be made upon the landlord in respect of (*c*) any house or building let in different apartments or tenements and occupied by two or more persons severally. Any such house or building shall be assessed and charged as one entire house or tenement." Schedule A, however, prefaces these rules with the following qualification:—"Nothing in these rules shall affect the valuation of lands, tenements, or hereditaments within the administrative County of London, with respect to which the valuation list under the Valuation (Metropolis) Act, 1869, is by that Act made conclusive for the purposes of Income Tax," and then it is further provided that certain of the rules, of which Rule 8, Part VII., was not one, and "any other rule which relates

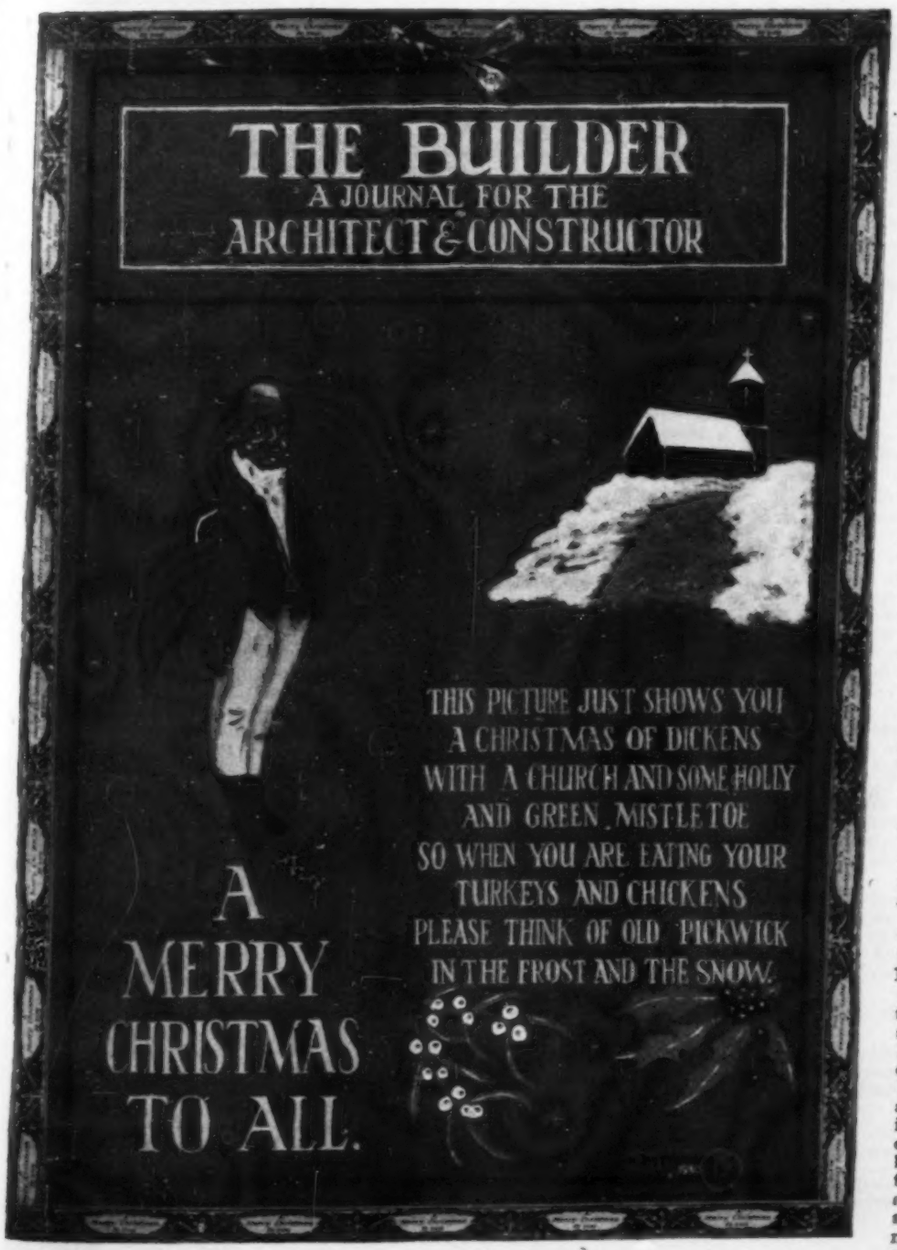
to the ascertainment of the value of such lands, tenements, and hereditaments "should not apply in the administrative County of London. It was held that this rule did not relate to the "ascertainment of value, but merely dealt with the incidence of the charge when ascertained, and thus that the objection taken failed, and in the first of the two cases it was also held that the finding of the Court below was correct that the block of flats constituted one building as distinguished from the separate tenements.

The points involved in the second case appear to have been much the same as regards Rule 8, Part VII.; but as regards deductions, Rule 7 (1) (*a*) and (*b*) of Part V. was relied upon by the objectors. In the Court below it had been held that this rule had no application to the objector's case, because, by sub-clause (2) of Rule 7, it is provided that, where the assessment in the case of any house or building (except a farmhouse) is more than one-sixth below the rent after deducting from such rent any outgoing which by law should be deducted, this rule has no application, and here the assessment was less than the rent by a sum greater than the authorised deduction, but in the Court of Appeal the point appears to have been decided upon the same ground as that applied to Rule 8, Part VII., that it was a rule relating to deductions from a value already otherwise ascertained, and therefore was not excluded as a rule relating to "the ascertainment of value."

Rule 7, Part V., is not one of the rules which in the prefatory paragraph of Schedule A is specially stated not to apply within the County of London, and in the schedule such rules are distinguished by an asterisk.

Department of Public Works, N.S.W.

From the report of the Department of Public Works, New South Wales, for the year ended June, 1929, now issued, we learn that school buildings totalling £268,292 have been erected by the Government Architect's Branch. Many new works have been carried out or were proposed for the present year. These include an out-patients' department at the Newcastle District Hospital, to cost £40,000; nurses' quarters at Royal North Shore Hospital, £34,000; considerable extensions, to cost £104,000, at the Orange Mental Home; and other various building works totalling, both for metropolitan and country districts, £424,647. The Government Architect is Mr. R. M. S. Wells, Sydney, New South Wales, Australia.



We have Pleasure in Reproducing the above Christmas Card, sent by One of Our Readers.

NOTES ON LONDON BUILDING ACT, 1930

By W. T. CRESWELL, Barrister-at-law.

X.—RIGHTS OF BUILDING AND ADJOINING OWNERS.

Part IX of the Act in effect re-enacts Part VIII of the Act of 1894, and is of importance to those engaged in building, since attention to its provisions is required of them continually.

Building Owner, Adjoining Owner.

The term "building owner," as used in section 5, is applicable to:—

1. An owner of land who is desirous of erecting a structure which will cause an existing extreme wall of a building on adjoining land to become a party structure, or which itself is a potential party structure, in reference to possible buildings on the adjoining land.

2. A building owner who is desirous of making any interference with an existing party structure.

And it is to be noted that here, all matters refer to buildings exclusive of party fence walls, which only separate the land of different owners. See Lewis & Salome *v.* Charing Cross, Euston, and Hampstead Railway Co. (1906), 1 Ch. 508.

It follows that the "adjoining owner" is the owner of the building on the other side of the party structure existing.

This term is applicable to every person (other than tenants from year to year or at will) who hold any interest in the adjoining premises.

Any notice to be served (under this part of the Act) can be served on any one of those persons individually, but not on a tenant.

See Crosby *v.* Alhambra Co., Ltd. (1907), 1 Ch., 295.

Party Structures.

A wall may be a party wall (not only for part of its length, but also for part of its height). See London, Gloucestershire and North Hants Dairy Co., *v.* Mosley and Lanceley (1911), 2 K.B. 25.

A building owner, desirous of building a party wall, where at present the boundary is not built upon, must give notice to the adjoining owner describing the intended wall, and if the adjoining owner consents, he may build the wall half on his own land and half on that of the adjoining owner. The expense of so doing being shared by the two owners in anticipation of the use which each makes, or may make, of the wall. If such consent be not given the building owner must build the wall entirely on his own land, but with footings and concrete on adjoining owner's land, making compensation to the adjoining owner for any damage there may be caused.

If there be a building already on the adjoining land, he may place his footings below the level of the lowest floor thereof, and, in this case, compensate for damage.

The district surveyor has power to permit the omission of the projecting of footings where the external wall is built against an existing wall.

The building owner has no authority under the Act to obstruct ancient lights. See Crofts *v.* Haldane (1867) L.R. 2 Q.B. 194.

The rights of the building owner and the adjoining owner respectively as to party structures, are set out in sections 114 and 115 of the Act; but section 116 enacts that, except in the case of a party structure being dangerous, or the building owner already having the consent of the adjoining owners and occupiers, he (the building owner) must not exercise his rights until he has given to the adjoining owner, in the case of party fence walls, one month, and in the case of party walls and party structures, two months' notice stating the nature and particulars of the proposed work and the date when he proposes to commence the work. He must provide efficient protection to the adjoining pre-

mises, and must not cause any unnecessary inconvenience to the adjoining owner or occupiers. And the work must commence within six months after notice.

Should the adjoining owner require the building owner to do such works as he is entitled to require him to do, he must, within one month of receiving that notice, serve the building owner with a notice stating what works he wishes to have done, and giving, if necessary, explanatory plans and drawings.

If either owner, being served with a notice, does not, within 14 days, consent to the same, then it is to be considered that he has dissented therefrom, and that a dispute has arisen between them.

In general, a building owner in exercising his rights under the Act, must make good any damage sustained by the wall or building affected.

"Make good" means make good for the purpose for which the structure is used or intended to be used.

In case of a dispute arising as to the mode of repairing a defect in making good, the tribunal of appeal determines the best way it should be done. Also its previous history must be taken into account. The fact that a wall lets in damp does not necessarily mean that it is defective for the purposes of the Act. See Barry *v.* Minturn (1913), A.C. 584.

Arbitration.

Provision is made under section 117 of the Act for settlement of disputes by arbitration. Both parties may agree to appoint one surveyor to decide their differences; failing that each is to appoint his own surveyor, that is to say, the three form a triumvirate, who shall settle the dispute which has arisen. No work should be done till the award is made. See Standard Bank of British South Africa *v.* Stokes (1878) 9 Ch., D. 68. No claim for loss of business can be entertained. See Adams *v.* Marylebone B.C. (1907), 2 K.B. 822.

Jurisdiction of Arbitrators.

The jurisdiction of the three surveyors or co-arbitrators so appointed, is continuous, until such time as all matters in dispute between the "building owner" and the "adjoining owner," and which shall arise out of the original notice given by the former, and the counter-notice or requisition given by the latter, are determined by them. In Selby *v.* Whitbread (1917, 1 K.B. 736) it was clearly enunciated that the three surveyors or co-arbitrators have power to make more than one award, as circumstances require, during the period of their jurisdiction and until all matters involved in the original notice given by the "building owner," are finally adjusted. But when this is accomplished their jurisdiction ends. See Leadbetter *v.* Marylebone Corporation (1904), 2 K.B. 893. The notice ought at the outset to be so clear and intelligible as to enable the adjoining owner to see what counter-notice or requisition he should give under the Act. See Hobbs, Hart & Co. *v.* Groves (1899), 1 Ch. II.

The Surveyors Are All Arbitrators.

The three surveyors are clearly co-arbitrators, each having equal authority, and the third surveyor is not an umpire called in to determine the differences between the other two; and the section provides that such one surveyor or three surveyors, or any two of them, shall settle any matter from time to time during the continuance of any work to which the notice relates, in dispute, and that an award given "by such one surveyor or such three surveyors, or by any two of them, shall be conclusive." This clearly provides for equality of judgment of all three on all matters, and they all act and act together, and should execute their award in conclave at the same time and place. The two surveyors appointed by the parties have no authority to treat the third surveyor as an umpire, who is only to be called in at any juncture when differences arise between themselves.

INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting?—ED.

Concrete Roofing Tiles.

[REPLY TO "ARCHITECT," DECEMBER 5.]

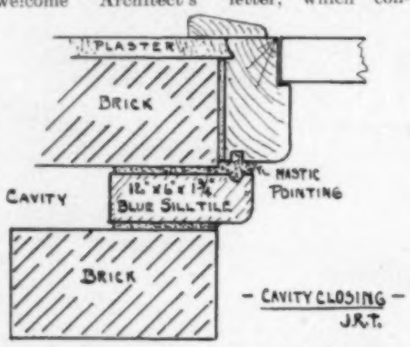
SIR,—I have recently used some nicely toned concrete roofing tiles, which are cheaper than any hand-made roofing tile of clay, and make a handsome job. They are heavier than the clay tile, but not heavier than can be safely laid upon the minimum size of roof member general in good-class work. I can see no possibility of failure in them, since they are rich in cement, and probably less liable to the attack of frost than the average clay tile.

USER.

"Improving the Cavity."

In connection with Dr. J. R. Taylor's article on this subject, published in our issue for November 28, a correspondent, signing himself "Architect," writes to suggest methods of closing the cavity at openings.

Commenting on these suggestions, Mr. Taylor writes as follows: "As I have before pointed out, I believe it to be much more important that architects should be alive to the results of any weakness in detail than that I should prove to be right. I therefore welcome 'Architect's' letter, which contains a valuable suggestion which I have ventured to carry a little further. It is, however, always necessary to remember that any improvement of 11 in. cavity walls that adds to their cost still further reduces the margin of initial economy in original outlay as compared with surer methods such as the introduction of a true vertical damp-proof course. My point is that to perfect this type of cavity wall would prove to be more costly than, say, poured asphalt when all factors have been taken into account."



Calculation.

[REPLY TO "P. Q. X.," DECEMBER 12.]

SIR,—I should like to thank your correspondent for his support in a matter which I feel receives insufficient attention. It always seems to me that the most careful calculations in building are vitiated by the slightest element of guesswork. The essence of structural soundness is in consistency. Excess of strength in one part may actually lead to a weakness in others.

PRACTICE.

Composition Flooring.

[REPLY TO "F. D.," DECEMBER 12.]

SIR,—"F. D." can buy sound-proofing plaster and cellular plaster, to mix with sawdust, corkdust, etc., to fill the spaces between floors and ceilings, partitions, etc., from any of the big plaster firms, or he can use any standard plaster of paris plus a percentage of suitable foam-producing chemicals to get the same result at less cost but slightly more trouble in mixing his dry ingredients. The insulation qualities of this type of mass space filler are fully recognised in Canada and U.S.A., where immense quantities of the prepared plaster are used annually for cold, heat, and sound insulation work.

W. PATTISON.

SCOTTISH HOUSING

In the House of Commons recently, Dr. Forgan asked the Secretary of State for Scotland the number of local authorities in Scotland that by December 1, 1930, had not complied with sub-sections (1) and (2) of Section 22 of the Housing (Scotland) Act, 1930, with respect to the submission to the Minister of proposals for the provision of new houses for the working-class; the number of local authorities that by the same date had complied with these sub-sections of the Act; and the approximate number of persons to be dealt with by such proposals.

Mr. Johnston, who replied, said that sub-section (1) of Section 22 of the Housing (Scotland) Act, 1930, did not require the submission of proposals by any specified date. Sub-section (2) required the submission of a general statement in 1930. The number of local authorities who had not submitted that statement by December 1 was 183. The number of local authorities who had submitted their proposals by the date referred to was 43. He was not in a position to furnish the particulars asked in the last part of the question. According to the statements which had been submitted to the Department up to December 11 by 55 local authorities, the estimated number of houses required in the districts of these local authorities was 14,088, and the estimated number of houses likely to be provided by these local authorities in the next three years was 11,198.

Mr. Hardie asked whether any report could be given on the durability of steel houses.

Mr. Johnston said he was not in a position to express an opinion on the durability of steel houses, but he was informed that the Second Scottish National Housing Company, who had erected 2,552 steel houses in different parts of Scotland, took the view that, with due attention to maintenance, including regular painting of the outside steel, these houses would outlast the period of the loan allowed for houses of this type, viz., forty years. He had no information to show to what extent tenants vacated steel houses when houses of other types became available, but he was informed by the company in question that of the 2,552 houses belonging to them, only four were unlet, and that the tenants generally were satisfied with the houses. No information was, meantime, available to permit of a reliable estimate of the relative costs of upkeep of steel and non-metal houses, but he was informed that the Company provided for twenty per cent. of the rental being carried to a repairs fund, although the actual expenditure on repairs during the last financial year of the Company was just over 16 per cent. of the rental.

In reply to questions by Mr. Stephens, Mr. Adamson said that 55 local authorities had submitted to the Department of Health for Scotland general statements in terms of Section 22 (2) of the Housing (Scotland) Act, 1930, showing that it was the intention of these local authorities to provide 11,198 houses within the next three years, of which 7,538 are to replace houses that were to be demolished or closed, and 1,456 were to rehouse persons living in overcrowded houses. The remainder were to meet the normal growth of population. In terms of Section 1 of the Act, three local authorities has passed clearance resolutions. The total number of houses proposed to be dealt with in carrying these resolutions into effect, and in acquiring additional lands and buildings under Section 3 of the Act was 1,677, and the total number of new houses proposed to be provided under these proposals was 1,623. Two local authorities had had tenders approved for the erection of 500 houses for the rehousing of persons to be displaced by means of demolition or closing orders under Part II of the Act. The average rents to be charged for the houses to be provided would fall to be determined.

THE BUILDING TRADE

RECURRING DEFECTS: THEIR CAUSE, PREVENTION AND CURE.—XXV

By J. R. TAYLOR

Conclusion.

A challenging statement that compared with the motor-building engineer the architect and/or builder does not give as much thought to the design and construction of our smaller domestic buildings first led to my examination of the value to be placed on an accusation of this sort. But although it proved to be quite easy to show that this reproach is ill-founded, there is sufficient truth in it to cause a reflection that we are not doing all that we might to insure that progress is maintained. In respect to this I think that what is lacking is the spur of publicity, particularly the unpleasant publicity that in many instances accompanies failure. The sight of a broken-down motor-car is common enough and does not now, as in earlier days, provoke derisive comment. But the motor-building engineer well knows that should any particular component of his car show weakness above the average it will quickly become generally known and seriously affect the sales. He therefore not only subjects everything to a severe test, but, in the light of the knowledge obtained by the calls made on his spare parts department, keeps track of any particular class of defect that arises, and endeavours to effect the necessary improvement. This is, of course, a service point, but in assessing the good marks to be given for it the fact that it is enforced by circumstances cannot be ignored; without it his business could not survive under the stress of competition. But it is exactly in respect to this that the architect is so often at a disadvantage. Generally speaking, he has but little to do with minor repairs and, in consequence, is not so well informed as to the weaknesses that may reveal themselves by reason of any departures from methods that have been proved by time. It was therefore thought desirable to recount the main defects that a great many years of experience and close observation had shown to be common enough to merit classification as "Recurring Defects."

In dealing with a subject of this sort, it is very difficult to avoid treading on somebody's toes. The fact that one is constrained to adopt an almost unbroken tone of criticism and yet, if possible, to refrain from giving offence, causes a good deal of anxiety, and in respect to this I have very good reason to be grateful to many of my readers for letters of further inquiry and encouragement. These letters have shown that the architect is keenly alive to the necessity for investigation in connection with the defects commented upon. As I have pointed out before, it is necessary to supplement this by constant observation and thought. A quiet walk through almost any street will reveal an almost incredibly long list of small defects needing attention. Many of them are due either to the negligence or ignorance of the owner, but it is here that a leaf might be taken from the engineer's book and a better effort made to render everything as nearly fool-proof as possible. It is not sufficient merely to note the defects that do recur, but to seek out the cause and apply the remedies. To take a very simple instance:—What is the use of specifying four coats of perishable paint to a cast-iron eaves gutter and then fixing it in such a manner that a great part of it can never afterwards be reached by the brush? Yet this is being constantly done for reasons of cheapness and richly-scrolled brackets are added for effect. Here lies my whole complaint, that money is spent on superfluous ornament that might be devoted to insuring better wearing qualities and lower maintenance costs. I like to see a nicely scrolled bracket as much as anybody, but not applied to an unworkmanlike job. But here, for the present, my complaints must end.

CONSTRUCTION JOINTS IN CONCRETE

A FULLY illustrated report* on this subject, giving an account of investigations made at the Building Research Station into construction joints in concrete and including also information on the subject collected from available literature, has just been issued by the Department of Scientific and Industrial Research. In a preparatory note Dr. Stradling points out that in order that the more important conclusions and recommendations may be readily applied, they are being presented briefly in a separate Bulletin (Bonding New Concrete to Old. Building Research Bulletin No. 9. H.M. Stationery Office, 1930. Price 3d. net).

In Part I the experimental details are dealt with. Part II deals with the evils attendant upon the improper construction of joints. Insufficient attention to this matter, it is stated, may result in :—

(i) Lack of strength and adhesion at the joints, rendering the structure incapable of satisfactorily resisting shrinkage strains, or movements due to settlements in the structure;

(ii) Efflorescence at the joints;

(iii) Disintegration due to freezing of water which may enter the joint;

(iv) A susceptibility to percolation of moisture;

(v) Disintegration due to penetration of substances in solution;

(vi) Failure under action of heat during conflagrations.

Part III deals with the factors reducing the efficiency of bond at construction joints, and among these factors may be enumerated—

(i) Segregation and the formation of laitance, due to too much mixing water or excessive ramming; the use of over-wet and under-sanded mixes result in a non-uniform condition throughout the structure, rendering the concrete in the neighbourhood of the construction joint very porous and susceptible to attack by weathering agencies. This porous and laitance-covered portion of the concrete must be removed before the new concrete is added. The consistence of mix should be carefully controlled and should be just sufficiently plastic that it will flow sluggishly when tamped into position. Mixes too stiff or too dry will render the efficient jointing of successive layers very difficult and the concrete at the bottom of a cast will be porous.

(ii) Scum, dirt and clay, arising from the use of unclean materials, or, for example, from insufficient care in removing silt and debris from the bottom of excavations, before the concrete is poured, or sawdust and shavings from forms and shuttering.

(iii) Oil and grease, deposited from mixing plant, tools, etc.

Part IV is concerned with the preparation of the surface of the old concrete in readiness for bonding on the new concrete, and the following conclusions have been drawn :—

(i) The best method of treating the old surface of matured concrete appeared from tests carried out to be by bush-hammering and wirebrushing.

(ii) Tests indicated that immature concrete did not give such good results, however, by this treatment. The explanation appears to be that the aggregate in the neighbourhood of the joint may be permanently loosened by the chipping operation. In practically all cases where this process had been used failure of the composite beam occurred in the old concrete about ¼ in. from the joint. This point did not arise in the case of aluminous cement concrete, which is comparatively matured at 24 hours.

(iii) The use of certain proprietary solutions for treating the surface of concrete is advantageous. The solutions may be applied to the shuttering before the concrete is poured and the setting and hardening of the film of cement mortar brought into contact with it is retarded. When the shuttering is struck the soft surface may be removed by wirebrushing. As with all solutions applied to the surface of the concrete, it is necessary to ensure that the chemical action of the compound has ceased before the new material is added.

(iv) If the concrete to which new concrete is being added has thoroughly matured, say, after one month in the case of Portland cement concrete, the bond strength is generally not so high as when the old concrete is less mature, due possibly to—

(*a*) The greater difficulty in chipping the concrete surface due to its increased hardness;

(*b*) The greater differential shrinkage movements which occur between the old and new concrete (the comparatively greater shrinkage of aluminous cement concrete at the early ages would account for the comparatively lower bond strengths with this type of cement).

(v) Tests showed that washing the surface of Portland cement concrete with dilute hydrochloric acid with the object of eating away the cement skin and exposing the aggregate and so giving a key for the new concrete, did not produce very good results, but for concretes with a comparatively harder surface, e.g., rapid-hardening Portland cement concrete and aluminous cement concrete, its use did seem advantageous, more especially in the case of aluminous cement concrete. The acid wash must be used judiciously and every care taken to ensure that all traces of the acid are removed by thorough washing and scrubbing, since undue penetration into the surface will have a deleterious effect. Acetic acid and oxalic acid have been tried by some investigators, but these acids are much slower in their action and more costly to purchase.

(vi) In special circumstances, as, for example, where it is necessary to bond on to reinforced concrete in which there is an intricate network of reinforcing bars rendering access to the interior very difficult, the use of the sandblast for cleaning the concrete and the application of concrete by the "cement gun" process may be advantageous. High-pressure steam has been used for successfully cleaning the surface of the old concrete.

(vii) The splicing of concrete with dovetail, scarf or step joints has been shown by Perry to be of little advantage. The insertion of special reinforcement at right angles to the joint and extending a sufficient distance on each side of the joint to develop the strength of the reinforcement by bond, is recommended by various authorities. It is generally only possible to use such reinforcement satisfactorily if future additions to existing work are foreseen, in which case the rods may be satisfactorily embedded.

The method of application of the new concrete to the prepared surface of the old concrete is discussed in Part V, and the following observations have been made :—

(i) Tests have shown that, to ensure a good bond, a mix which is sufficiently plastic

*Construction Joints in Concrete. Bonding New Concrete to Old. H.M. Stationery Office. Price 2s. net.

to enter the interstices of the surface of the old concrete must be used. Dry-tamped mixes give poor bond; on the other hand, excessively wet mixes should be avoided, as the strains due to differential shrinkage may be considerable and render the resulting joint weak.

(ii) If the stoppage in the work is of short duration, say, a matter of hours, then the application of a mortar grout of similar composition to that embodied in the new concrete mix itself would appear beneficial if applied to the surface of the concrete already in position, after the latter has been thoroughly moistened with water. When the concrete is more mature, the hardened surface of the concrete should be chipped away and wirebrushed, moistened with water, a neat cement slurry applied, and followed with a mortar grout of similar composition to that embodied in the new concrete to be added.

(iii) The method of grouting involving the application of a neat cement slurry, followed by a rich mortar, e.g., two parts cement and one part of sand by weight, again followed by a mortar composed of one part of cement and two parts of sand by weight, so as to give a graduation at the joint to reduce differential shrinkage, gave excellent results throughout the investigation. Almost without exception failure occurred away from the joint, showing that the adhesion at the joint was good. The method is one which would, however, entail a considerable amount of supervision in practice.

The durability of construction joints is discussed in Part VI, and the following points were brought out :—

(i) In the case of normal Portland cement concrete, joints made when the base blocks were seven days old were stronger than those made at one or three days. For rapid-hardening Portland cement concrete, the joints made when the concrete of the base blocks was one day old were lower than those made at three or seven days, while for aluminous cement concrete there was practically no difference between joints made when the blocks were one, three or seven days old.

(ii) There was a general tendency for an increase in the strength of the joint to take place with time.

(iii) Tests indicated that the slower the cement was in hardening, the higher was the resulting strength of the joint. (This may be explained by the more marked shrinkage strains which are set up in rapid-hardening cements during the hardening period.) Thus the normal Portland cement concrete was generally stronger than jointed aluminous cement concrete.

(iv) When the cement content of the old concrete is relatively high, as in the case of a 1 : 1 : 2 mix, the skin of cement which forms upon the old surface prevents good adhesion when the new concrete is added directly to it. When a rich mix is added to hardened concrete without any treatment to its surface, the rich mix gives more cement at the joint, and this enters the interstices of the old surface and so forms a good bond.

(v) Tests showed that it was preferable to lay the wearing course of a concrete floor immediately after placing the base concrete than to wait until the base concrete had hardened.

(vi) A number of variously constructed concrete joints were tested for permeability to water applied at a pressure of 100 lb. per sq. in. The tests showed that the joints made by all the methods tried were practically impermeable, although strength tests indicated that some joints were very much weaker than others.

In order to remain impermeable, joints must be constructed in such a manner as to withstand the strains due, for example, to shrinkage movements or settlement in the structure to which it is likely to be subjected. A high adhesion strength is necessary, and tests have shown that, where this has been achieved, watertightness of the joint is assured. A construction joint of lower strength, although not necessarily permeable in the first instance, may become permeable after a short period of service. In addition, improperly constructed joints may become permeable in course of time, due to chemical agents attacking porous concrete.

Part VII is concerned with the bonding of different types of cement, and the following conclusions have been drawn :—

(i) Provided the old portion of the concrete structure has hardened, there appears from the tests carried out to be no objection to bonding on new concrete prepared with a different type of cement.

(ii) Tests showed that aluminous cement concrete adhered to normal Portland cement concrete, under the particular conditions of test, with a bond 35 per cent. greater than that of aluminous cement concrete to aluminous cement concrete.

(iii) Although aluminous cements will bond quite well to rapid-hardening Portland cements and, in fact, equal the adhesion of aluminous cement to aluminous cement, it would appear from the tests carried out that the strengths are not quite as great for rapid-hardening Portland cement concrete as for normal Portland cement concrete.

(iv) The adhesion of normal Portland cement concrete to aluminous cement concrete was only approximately 80 per cent. of the adhesion of normal Portland cement concrete to normal Portland cement concrete.

(v) The bond strength of normal Portland cement concrete to rapid-hardening Portland cement concrete was found to be similar to that of normal Portland cement concrete to normal Portland cement concrete.

(vi) The bond of rapid-hardening Portland cement concrete to normal Portland cement concrete appeared from the tests carried out to be slightly better than the bond of rapid-hardening Portland cement concrete to rapid-hardening Portland cement concrete.

(vii) The bond of rapid-hardening Portland cement concrete to aluminous cement concrete did not appear to be as good as the bond of normal Portland cement concrete to aluminous cement concrete and was only 60 per cent., approximately, of the bond of rapid-hardening Portland cement concrete to rapid-hardening Portland cement concrete.

The question of where joints are best located in a structure is discussed in Part VIII, and as a general rule joints should be placed so that they lie in a plane normal to the line of thrust likely to act upon them, and at a point where there is no considerable shear.

References made to other literature dealing with the subject are collected together in Part X.

"IMPROVEMENT LINES"

CONTRAVENED BY "AN ERECTION."

One of the first cases arising in connection with an "Improvement Line" under section 33 of the Public Health Act, 1925, is reported in the Weekly Notes, December 6—Sittingbourne Urban District Council *v.* Lipton, Ltd. The Urban Council, the appellants, had duly adopted Part II of the Public Health Act, 1925, and under section 33 had prescribed, on June 28, 1927, an improvement line in the High Street. The respondents were the owners and occupiers of premises Nos. 106-108 in the High Street, and in 1908, they, then being tenants had, with the approval of the appellants set back the shop front on the ground floor, leaving a tiled forecourt open to the access of the public, but used by the respondents for the exhibition of their wares. The upper stories of the premises projected to the line of the footpath, being supported by side walls projecting to the same degree, and by two iron columns standing on the forecourt.

In 1929 the respondents had carried out works described, which may be summarised from the report as follows :—The erection (*a*) of a stud partition wall; (*b*) a door-frame and door; (*c*) a new shop front consisting of a wooden framework enclosing plate-glass windows, the basis of the framework being faced with marble slabs 1¼ in. in thickness. The stud partition and the shop front were wedged into position and the tiled flooring of the forecourt upon which the new shop front and partition were erected was not interfered with. These works carried none of the weight of the upper stories, and the iron pillars were not interfered with, though for ornament they were encased with mirrors. The shop front as altered was in the same line as the original shop had been in 1908 and did not project over the line of the street, the wooden portion of the new shop-front had been delivered ready made. The stud partition had been erected on the site and faced with matchboard. The appellants contended that this was "an erection" within the meaning of section 33 of the Public Health Act, 1925, but the respondents contended (1) that the Act contemplated a new erection upon land which was not occupied by buildings at the date on which the improvement line was prescribed and which therefore might be acquired under sub-section (8) of section 33, and therefore, as at that date the land was already occupied by buildings, the land could not have been acquired before the new works were executed, and therefore the works were not an "erection" within the section; (2), that the section did not apply to every erection which might be made by an occupier for his own convenience within the boundaries of an existing building. The justices had found that the works did not constitute "an erection" within the meaning of section 33, sub-section (5).

The Court held that in order to determine the meaning of "erection" in this statute it was necessary to regard the object of the section which was to facilitate the widening of streets, and to effect this object the authority had been empowered to lay down an improvement line to which in future it was intended the buildings to be set back, and it was contemplated that the authority would exercise its powers under section 154 of the Public Health Act, 1875, to acquire buildings in front of that line. Therefore it was obvious that it would be a material consideration whether what had been done here would impose a greater burden on the authority when it came to exercise that power, and it could not be doubted that the acquisition of this piece of the shop would be at greater cost than would have been the acquisition of the forecourt as it was before; therefore this addition was "an erection" within the section.

The case is only at present briefly reported, but this decision appears to make it unnecessary to consider the various decisions under different Acts, such as the London Building Act and the Metropolis Managements Acts on the meaning of the word "erection." Under the latter Acts there is, however, a case somewhat in point, Wendon *v.* London County Council (1894, 1 Q.B. 812). In that case in a newly laid-out street the owner of land had commenced to build and had erected a wall which would be the front of the building to a height of 12 ft., but proceeded no farther. Two years later he erected a row of houses at the same side of the street, but set back 10 ft. farther from the road, thus creating a building line. He subsequently leased the original piece of land with the above wall standing upon it, and the lessor proceeded to erect the building upon the original plans. The Court of Appeal held that the wall built before the building line came into existence was not a "building" within the Act, and therefore at the time the building line came into existence that land was vacant land. In Mackenzie *v.* Abbott (24 L.G.R., 444) petrol pumps were held an erection in connection with a building line defined under the Town Planning Act.

NEW BUILDINGS IN LONDON.

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *Office not later than Tuesday evening.*

Acton.—FACTORY.—Messrs. Allnatt, Ltd., Chase Estate, Park Royal, N.W.10, are building a new factory for Tokalon, Ltd., 212, Great Portland-street, W.1.

Barnes.—HOUSING.—The U.D.C. has accepted the estimate of Messrs. Wm. Lowe & Son, Ltd., of Barnes, at £13,650, for the erection of houses, baths and wash-houses.

Bermondsey.—ALTERATIONS. — Alterations are to be made to the "New Tanner's Arms," at 155, Grange-road. Plans by Mr. A. W. Blomfield, of Messrs. Watney, Combe, Reid and Co., Ltd., Stag Brewery, S.W.1.

Bermondsey.—HALL.—Rev. A. P. Flanagan, 14, Melior-street, on behalf of the Trustees of the Roman Catholic diocese of Southwark, Bishop's House, St. George's-road, S.E.1, is to erect a church hall at Snowfields.

Chiswick.—ALTERATIONS.—Alterations and additions are being made to the "George and Devonshire" public-house at Burlington-lane. Messrs Fuller, Smith and Turner, brewers, Griffin Brewery, Chiswick, are doing their own building.

Croydon.—HOUSING.—The C.B. are prepared to receive tenders for the erection of 42 houses at Downsview-road estate. The plans are by the Borough Engineer.

Deptford.—REMODELLING.—The Metropolitan Water Board has placed a contract with Messrs. John Mowlem & Co., Ltd., of Ebury Bridge-road, S.W.1, for the remodelling of the Deptford works.

East Ham.—SCHOOL.—The plans of a new elementary school at East Ham for Father Holmes have been approved by the Board of Education. The architects are Messrs. Marshall & Partners, 3, Arundel street, W.C.2.

Finchley.—CHURCH.—It is proposed to enlarge St. Mary's Church. The architect is Sir Charles Nicholson, Bart., F.R.I.B.A., 2, New-square, W.C.2.

Great West-road.—STATION.—Plans have been passed for the erection of a petrol filling station on the south-east corner of Ealing-road, and the Great West-road. The architects are Messrs. Roper, Son and Chapman, 247, High-street, Hounslow. No contract has yet been placed.

Isleworth.—FACTORY.—Messrs. Moss and Son, Walton-road, Molesey, have submitted plans to the Council for a factory for the manufacture of aeronautical instruments. The proposed site is in Tentlow-lane. The engineers for the scheme are Messrs. R. J. Colev, Ltd., Queen Elizabeth-road, Kingston-on-Thames.

Kensington.—FLATS.—Two blocks of flats, one 8 and one 10, are being erected at the corner of Silchester-road and Calverley-street for the Kensington Housing Trust, Ltd. The architects are Messrs. T. Smith, Shearer and S. Cameron Kirby, of 1a, Duke-street, Manchester-square, W.1. Messrs. R. Mansell, of Croydon, are the contractors.

Kensington.—EXTENSION.—Messrs. Lilley and Skinner, shoe specialists, have acquired premises adjoining their branch in Kensington High-street, to form an extension. Plans by Mr. Gordon Jeeves, 16, Hanover-square, W.1.

Lambeth.—BUILDINGS.—The L.C.C. has approved £56,000 in respect of the erection of blocks 3 and 4 of dwellings at Loughborough estate, Lambeth.

Lambeth.—REBUILDING.—Mr. F. G. Newnham, surveyor to Messrs Barclay, Perkins and Co., Park-street, S.E.1, has prepared plans for the rebuilding of the "Windmill" public-house, 62, New Cut.

Ludgate-hill.—REBUILDING. — No. 70 is being reconstructed to plans by Messrs. Gunton and Gunton, of Empire House, St. Martin's-le Grand, E.C. The contractors are Messrs. Ashby and Horner, of 8, Aldgate, E.C.3.

Peckham.—STORES.—The Royal Arsenal Co-operative Society are to reconstruct their branch at Rye-lane. 300 ft. of arcade will be constructed, and the plans provide for the erection of a hall to seat 800, guildrooms, classrooms, etc. The society's architect is Mr. S. A. Ackroyd, A.R.I.B.A.

Poplar.—HOUSING.—The L.C.C. recommend, subject to the consent of the M.H., land in the Baker's-alley area, Poplar, for housing purposes.

Poplar.—FLATS.—The B.C. recommend that the site in Poplar High-street abutting on the entrance to the Poplar Institution be acquired and a block of eleven flats be erected thereon in accordance with plans prepared by the Borough Surveyor.

Shoreditch.—NURSERY.—A sum of £4,000 is to be spent by the B.C. for the reconstruction of 77 and 79, Queen's-road, for the purposes of a day nursery.

Shoreditch.—EXTENSIONS.—For extensions to the Hoxton baths the B.C. has sanctioned £5,000.

Tooting.—EXTENSIONS.—The L.C.C. is to spend £5,860 on the provision and equipment of additional accommodation for male staff at Tooting Bec Hospital.

Tottenham. — EXTENSIONS. — Plans have been prepared for the erection of club premises in Crompton-crescent, N.17. The architect is Mr. E. Meredith, F.R.I.B.A., 7, Goodmayes-road, Seven Kings. The estimated cost of the scheme is between £5,000 and £6,000

Twickenham.—ALTERATIONS.—Messrs. J. Kidd and Son, 102, Clapham Park-road, S.W.4, are the contractors for alterations to the hall at Popes Grotto Hotel, Cross Deep. The architects are Messrs. Young and Hall, 17, Southampton-street, W.C.1.

LAW REPORT

ALLEGED FALSE TRADE DESCRIPTION.

BEFORE Sir George Truscott, at the Mansion House, a merchant was summoned for selling 1-cwt. keg of putty to which, it was contended, a false trade description had been applied, viz., that the said putty was "best linseed-oil putty." Defendant pleaded "guilty"; he was defended by Mr. A. A. Thomas, solicitor. Mr. G. B. McClure, barrister, who prosecuted for the Board of Trade, said the facts were simple; he was relying on the defendant's invoice. In September last a Mitcham firm bought from the defendant a 1-cwt. keg of putty. With the article was delivered an invoice on which the goods were described as "best linseed-oil putty." That term could only mean one thing—that the article was a mixture of pure linseed oil and whiting. The presence of any other oil made it, according to the custom of the trade, not putty at all. The prices quoted for the article were £8 15s., £8 17s. 6d., and £9 5s. per ton. Those prices could not have been paid for the real thing, because they were less than the price of linseed oil alone. Putty from Belgium had been coming into this country, and it was suggested that this Belgian putty was wrongly described as linseed-oil putty. An analysis of the article sold to the Mitcham firm showed that it consisted of 35.5 per cent. linseed oil, the remainder being a mineral oil. This mixture hardened and cracked, and was very inferior to real putty. Mr. Thomas said there was no dispute as to the facts, and the defence was the very short one that the offence was committed through a mistake.

Mr. John Vernon Gibbins, an analytical chemist, corroborated the analysis.

Mr. Frederick Runton said he had had over forty years' experience of the paint, colour and varnish trade. He was aware that Belgian putty was imported into this country, and it had been selling at from £8 to £9 a ton.

Mr. McClure: Is it possible to sell linseed-oil putty at that price? No. From July to September last the price of linseed-oil putty was about £14 to £15 a ton.

Mr. Thomas (defending) said he was arguing that his client acted without any intent to defraud, and that in selling this material he acted innocently.

Sir George Truscott asked Mr. McClure if this was an isolated case.

Mr. McClure: Apparently it cannot be an isolated case. This is a test matter. It is difficult to understand how it can be isolated, when the defendant offers putty at three different prices, commencing at £8 15s. a ton. It looks like a good deal of ignorance, and I do not suggest any attempt in the ordinary sense to defraud. There has been a lot of this Belgian putty coming into the country, and it was because of this stuff, which is very bad, coming here, that the prosecution was brought.

Sir George Truscott: And the price is about half that of the genuine article. I have come to the conclusion that I must convict. The maximum fine is £20. I shall fine him that amount, and allow the prosecution £10 10s. costs.

BRITISH INDUSTRIES FAIR

The Report of the Committee appointed by the Board of Trade, under the chairmanship of Viscount Chelmsford, to examine the present situation as regards the British Industries Fair and to consider what means can be adopted to increase still further its utility to British trade, has now made its appearance (H.M. Stationery Offices, price 6d. net). The Report contains the Committee's conclusions and recommendations, some of which the following abstracts convey:—

The Fair is still unrepresentative of British industry.

Foreign manufacturers more readily support trade fairs than do British manufacturers.

British firms must not judge the value of participation in trade fairs by its immediate returns in business.

There are some indications that the British manufacturers' prejudice against fairs is weakening.

The advertising of the Fair is of vital importance to its future development.

The advertising of the Fair overseas is of value to British industry as a whole, and not exclusively to exhibitors at the Fair.

We attach much importance to exhibitors at the Fair having competent salesmen always at their stalls.

While we would not discourage experiment by private enterprise in the organisation of exhibition ships and trains, we were impressed by the reluctance of British industry to support such schemes.

We consider that the cost of administering the Fair is reasonable.

The Fair undoubtedly obtains prestige and other benefits by reason of the London Section being organised by His Majesty's Government.

We have received striking evidence of the confidence shown by exhibitors in the administration of the Fair.

We recommend that charges for space should not be increased for the purpose of contributing towards advertising expenses.

The Government's publicity grant should be established and increased to a minimum of £100,000.

A second Fair should not be held in the autumn.

The Fair should be open on the Saturday of the second week.

A site easily accessible from central London should be acquired and equipped with buildings for the Fair capable of extension as required. A committee should be appointed to formulate definite proposals.

Wallasey Promenade Contract.

Messrs. Edmund Nuttall & Sons, Ltd., of Manchester, have been recommended as contractors for the construction of the £342,783 works on the new sea defence wall and marine lake at New Brighton.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Aldershot	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Alfreton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Alnwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashford (Kent)	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ashington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Aylsham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Banbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnstaple	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/8½	1/8½	1/8½	1/9½	1/8½	1/8½	1/8½	1/3½
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bognor Regis	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bradford-on-Avon	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Braintree	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Brentwood	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bridlington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bromsgrove	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bromyard	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Bungay	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Buxton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Carlisle	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chorley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cirencester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Clacton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cranbrook	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Deal	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Denbigh	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Devizes	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11
Dewsbury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dorchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Dorking	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Dovercourt	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Driffield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Droitwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ely	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Exeter	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Exmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Fakenham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Felixstowe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Frome	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Glossop	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Gosport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harpenden	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hastings	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0
Hatfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hednesford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Herne Bay	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hoik	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hunstanton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Huntingdon	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Isle of Wight	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
King's Lynn	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lancaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leighton Buzzard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Littlehampton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Liverpool	1/8½	1/8½	1/8½	1/9½	1/8½	1/8½	1/8½	1/3½
Llandudno	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London:								
12 m. radius	1/8½	1/8½	1/8½	1/8½*	1/8½	1/8½	1/7½	1/3½
12-15 m. radius	1/8	1/8	1/8	1/8*	1/8	1/8	1/7	1/3
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lowestoft	1/4½	1/4½	1/4½	1/4½	1 4½	1/4½	1/4½	1/0½
Luton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Macclesfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Maidstone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Malvern	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Margate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Market Harb'rough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Matlock	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Melton Constable	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Melton Mowbray	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Merthyr Tydfil	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newark	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Newbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-ur-Lyme	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
New Forest	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Nuneaton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Paignton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7	1/7	1/7	1/7	1/7	1/7	1/6	1/2½
Pontypridd	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Portsmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ramsgate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Reading	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Redcar	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Redditch	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Reigate	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Retford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ripon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rugby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Saffron Walden	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sawbridgeworth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Saxmundham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Scarborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Sevenoaks	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Southampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southend-on-Sea	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stevenage	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stowmarket	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Stratford-on-Avon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swaffham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1½
Tamworth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tbetford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Totnes	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Trowbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsden	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warminster	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wells (Norfolk)	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Weston-sup-Mare	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Weymouth	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Whitby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wisbech	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Woodbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Worthing	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wrexham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wycombe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wymondham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
York	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½

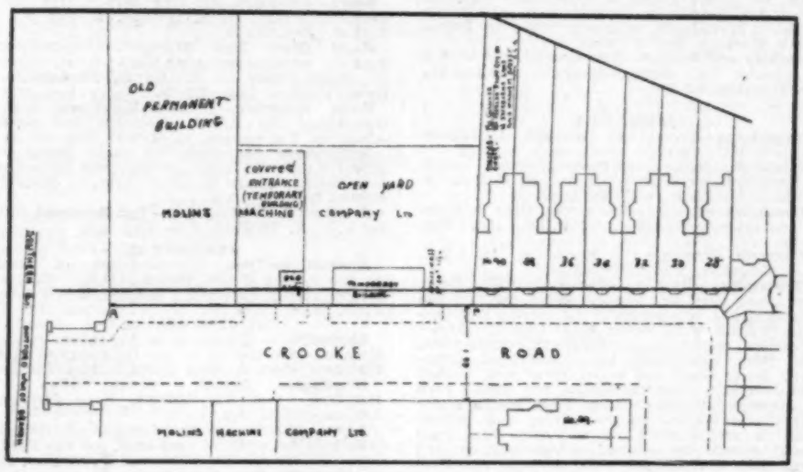
* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 1104.

TRIBUNAL OF APPEAL

MOLINS MACHINE COMPANY, LIMITED, AND LONDON COUNTY COUNCIL.

THE Molins Machine Co., Ltd., being desirous of erecting an extension to their works at Crooke-road, Deptford, S.E., on the site marked "Open Yard" on the accompanying plan, applied to the L.C.C. for approval of the plans, which approval was refused under Section 22 of the London Building Act, 1894, and Sections 17 and 18 of the London County Council (General Powers) Act, 1908. The company thereupon applied to the superintending architect to define the general line of buildings in Crooke-road between the points marked "A" and "B" on the plan and he certified the line to be as shown on the plan by a thick black line. The company appealed to the Tribunal of Appeal on the ground that sub-section (2) of Section 22 of the London Building Act, 1894, applied, and that the architect had therefore no power to define a line at all. The Tribunal decided against this contention, holding that, whether or not that sub-section applied, the architect, having been asked to certify the line, was bound to do so.



Plan illustrating Tribunal of Appeal Case.

The company then obtained leave to amend its grounds of appeal and applied for revision of the line certified on the ground that the architect took into account too great a length of street, and should have treated the company's frontage as a separate portion of the street with a building line of its own and that the general line of buildings was that of the front of the premises of the company immediately abutting on the road and some 8 ft. in front of the thick black line above referred to. On the second contention the Tribunal allowed the appeal and reversed the superintending architect's certificate in so far as it related to the line between the points "A" and "B" on the plan, and decided that it was unnecessary and inconvenient to define a general line of buildings longer than the line between the points "A" and "B," and that as between the said points the general line of buildings was the line of the company's existing frontage. We understand that the L.C.C. have applied to the Tribunal to state a case for the opinion of the High Court.

Counsel for the Company:—Mr. W. T. Creswell.

Counsel for the London County Council:—Mr. A. M. Trustram Eve.

Builders' Merchant's Estate.

Mr. John Frederick Chiverall (45), of Grove Park, Denmark Hill, S.E.5, and Camberwell-grove, S.E.5, builders' merchant (net personalty £20,524) left £26,013.

NEWS ITEMS

Overseas Trade.

A valuable booklet to those manufacturers who have business connections overseas is the "Guide to the Services of the Department of Overseas Trade," recently published by the Department. A considerable part of the work of the Department is concerned with the supply of information to inquirers interested in the export of goods manufactured in the United Kingdom. A trader faced with the question whether it is worth while to push the sale of his commodities in some new market will obviously need, as the basis of his judgment, facts in the shape of trade figures, price figures, statements regarding customs tariffs and regulations and other legislation, freights and shipping matters. If he decides to proceed, he will need further information about conditions on the spot, names of importers and of possible agents, and so forth. In all these matters the Department makes it its business to help, and the means by which this is brought about is clearly set out in the booklet, copies of which are obtainable from the Department at 35, Old Queen-street, S.W.1.

Newcastle Housing Schemes, 1931-35.

A scheme of slum clearance and rehousing, involving the demolition of 1,272 dwellings, the construction of 2,182 new dwellings and the transfer to better conditions of 9,604 persons, has been prepared jointly by the Newcastle-on-Tyne Housing, Health and Insanitary Property Committees. The Housing Committee has decided to recommend the City Council to advance this scheme as their five-years' programme under the Housing Act, 1930. A capital expenditure of more than £500,000 is involved and the scheme is additional to that approved earlier in the year for the provision of 3,000 new Corporation houses at a cost of approximately £1,000,000.

Mr. William Anderson.

We regret to record the death of Mr. William Anderson, of the firm of Messrs. P. & W. Anderson (Glasgow), Ltd., at Glasgow. Mr. Anderson was one of the best-known figures in the building trade in the West of Scotland, and among the work which he personally superintended was the construction of the addition to the Royal Infirmary, the erection of the Royal Technical College, and the construction work on the new Mitchell Library. Mr. Anderson, who was in his 81st year, took an active part in the work of the firm, and was at business a few hours before his death. He was a member of the Incorporation of Masons.

Decoration in Winter.

The house painting and decorating trade is one of those which suffer considerably during the winter months. The public, local governing authorities, landlords and large firms, who have properties under their control, can play a large part to help matters by putting as much interior painting in hand as possible during the winter months. This can be done equally well in winter as in summer. A considerable amount of arrears in painting work is waiting to be carried out; neglect means deterioration and lowered value so far as property is concerned.

New Park, Enfield.

Subject to the approval of the Ministry of Health, an historic estate of over 250 acres, within eleven miles of Euston Station, is to become a public park. Middlesex County Council has agreed to the purchase of Whitewebbs Park, Enfield, for a sum of £23,000, of which it will contribute three-quarters. The remainder of the purchase price will be found by the Enfield Urban District Council. It was originally part of the old "Enfield Chase"—wild, heavily-wooded common land, where James I. hunted.

1930-31 Income Tax Manual.

The method of calculating Mr. Snowden's tax proposals for 1930-31 will be found set out clearly and concisely in Tolley's Handbook of Income Tax, Super Tax, and Surtax published by Waterlow & Sons, Ltd., Birchin-lane, E.C.3 (price 1s.). Included are tables for increased rates and extended allowances, new assessment system for 1930-31 in place of the average assessment of income.

New Secondary Schools, Sheffield.

A suggestion that the scheme for the erection of secondary schools for boys and girls at High Storrs should be postponed for one year has been rejected by the Sheffield Education Committee. Tenders will now be invited for the erection of the schools, the estimated cost of buildings being £117,500.

GROUP PENSION INSURANCE

THE modern pension plan and group insurance idea now being operated in many progressive business enterprises illustrate two things to a remarkable degree. One is the genuine co-operation and good will which exists between employers and workers in most successful enterprises, and the other is the great advantages which can be secured for the benefit of individual employees when the wholesale purchasing power of the employer is utilised for their benefit. A typical group insurance and pension scheme of the most modern type, covering both staff and factory workers, has recently been installed by Messrs. A. T. Morse, Sons and Co., Ltd., Plaistow, paint manufacturers, in co-operation with their workers. This scheme provides £100 of life insurance for all factory workers, together with a pension of £1 annually from age 65 for each year of membership in the scheme. The company has purchased pensions for past service of all factory workers of an equal amount, so that in effect each worker's pension has been accumulating since he entered the company's service, no matter how long ago. The company pays the entire cost of the scheme except for a weekly contribution of one shilling from the employee. When an employee retires on pension the company will keep the £100 of group insurance in force at its own expense for one year for each five years of service completed prior to retirement. In the event of total and permanent disability before age 60 the £100 of life insurance will be paid directly to the member, with interest, in 40 monthly instalments of £2 12s. 6d. The scheme has been placed with the Metropolitan Life Insurance Company of New York, whose British headquarters are at Bush House, Aldwych, W.C.2.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Aldershot	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Alfreton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Alnwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashford (Kent)	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ashington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Aylsham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Banbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnstaple	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/8½	1/8½	1/8½	1/9½	1/8½	1/8½	1/8½	1/3½
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bognor Regis	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bradford-on-Avon	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11
Braintree	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Brentwood	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bridlington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bromsgrove	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bromyard	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Bungay	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Buxton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Carlisle	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chorley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cirencester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Clacton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cranbrook	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Deal	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Denbigh	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Devizes	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Dewsbury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dorchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Dorking	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Dovercourt	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Driffield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Droitwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E.Glam. (Mon. Val.)	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ely	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Exeter	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Exmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Fakenham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Felixstowe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Frome	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Glossop	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Gosport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harpenden	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hatfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Headnesford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Herne Bay	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Huddersfield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	11
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hunstanton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Huntingdon	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Isle of Wight	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
King's Lynn	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lancaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leighton Buzzard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Littlehampton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Liverpool	1/8½	1/8½	1/8½	1/9½	1/8½	1/8½	1/8½	1/3½
Llandudno	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London:								
12 m. radius	1/8½	1/8½	1/8½	1/8½*	1/8½	1/8½	1/7½	1/3½
12-15 m. radius	1/8	1/8	1/8	1/8*	1/8	1/8	1/7	1/3
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lowestoft	1/4½	1/4½	1/4½	1/4½	1 4½	1/4½	1/4½	1/0½
Luton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Macclesfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Maidstone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Malvern	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Margate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Market Harb'rough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Matlock	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Melton Constable	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Melton Mowbray	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Merthyr Tydfil	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newark	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Newbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-ur-Lyme	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
New Forest	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Nuneaton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Paignton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Pontypridd	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Portamouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ramsgate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Reading	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Redcar	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Redditch	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Reigate	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Retford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ripon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rugby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Saffron Walden	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sawbridgeworth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Saxmundham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Scarborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Sevenoaks	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Southampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southend-on-Sea	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stevenage	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stowmarket	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Stratford-on-Avon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swaffham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1½
Tamworth	1/6½	1 6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Thetford	1/3½	1 3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Totnes	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Trowbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsden	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warminster	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wells (Norfolk)	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Weston-sup-Mare	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Weymouth	1/4	1/4	1/4	1/4	1/4	1/4	1/3	11½
Whitby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wisbech	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Woodbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Worthing	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wrexham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wycombe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wymondham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
York	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½

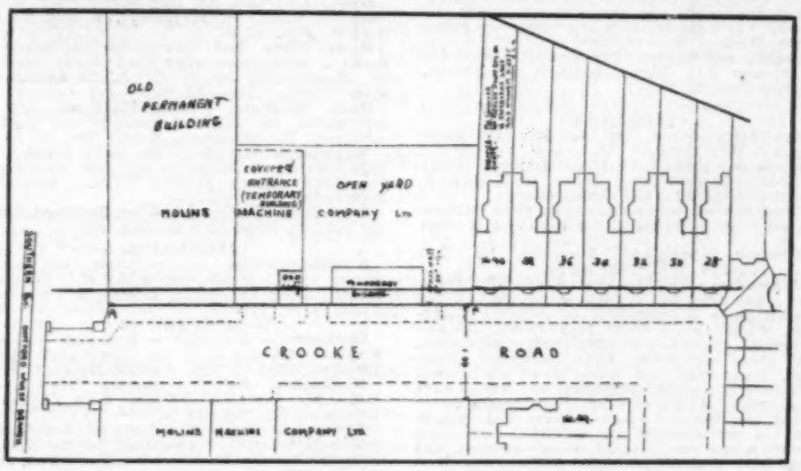
* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 1104.

TRIBUNAL OF APPEAL

MOLINS MACHINE COMPANY, LIMITED, AND LONDON COUNTY COUNCIL.

THE Molins Machine Co., Ltd., being desirous of erecting an extension to their works at Crooke-road, Deptford, S.E., on the site marked "Open Yard" on the accompanying plan, applied to the L.C.C. for approval of the plans, which approval was refused under Section 22 of the London Building Act, 1894, and Sections 17 and 18 of the London County Council (General Powers) Act, 1908. The company thereupon applied to the superintending architect to define the general line of buildings in Crooke-road between the points marked "A" and "B" on the plan and he certified the line to be as shown on the plan by a thick black line. The company appealed to the Tribunal of Appeal on the ground that sub-section (2) of Section 22 of the London Building Act, 1894, applied, and that the architect had therefore no power to define a line at all. The Tribunal decided against this contention, holding that, whether or not that sub-section applied, the architect, having been asked to certify the line, was bound to do so.



Plan illustrating Tribunal of Appeal Case.

The company then obtained leave to amend its grounds of appeal and applied for revision of the line certified on the ground that the architect took into account too great a length of street, and should have treated the company's frontage as a separate portion of the street with a building line of its own and that the general line of buildings was that of the front of the premises of the company immediately abutting on the road and some 8 ft. in front of the thick black line above referred to. On the second contention the Tribunal allowed the appeal and reversed the superintending architect's certificate in so far as it related to the line between the points "A" and "B" on the plan, and decided that it was unnecessary and inconvenient to define a general line of buildings longer than the line between the points "A" and "B," and that as between the said points the general line of buildings was the line of the company's existing frontage. We understand that the L.C.C. have applied to the Tribunal to state a case for the opinion of the High Court.

Counsel for the Company:—Mr. W. T. Creswell.

Counsel for the London County Council:—Mr. A. M. Trustram Eve.

Builders' Merchant's Estate.

Mr. John Frederick Chiverall (45), of Grove Park, Denmark Hill, S.E.5, and Camberwell-grove, S.E.5, builders' merchant (net personalty £20,524) left £26,013.

NEWS ITEMS

Overseas Trade.

A valuable booklet to those manufacturers who have business connections overseas is the "Guide to the Services of the Department of Overseas Trade," recently published by the Department. A considerable part of the work of the Department is concerned with the supply of information to inquirers interested in the export of goods manufactured in the United Kingdom. A trader faced with the question whether it is worth while to push the sale of his commodities in some new market will obviously need, as the basis of his judgment, facts in the shape of trade figures, price figures, statements regarding customs tariffs and regulations and other legislation, freights and shipping matters. If he decides to proceed, he will need further information about conditions on the spot, names of importers and of possible agents, and so forth. In all these matters the Department makes it its business to help, and the means by which this is brought about is clearly set out in the booklet, copies of which are obtainable from the Department at 35, Old Queen-street, S.W.1.

Newcastle Housing Schemes, 1931-35.

A scheme of slum clearance and rehousing, involving the demolition of 1,272 dwellings, the construction of 2,182 new dwellings and the transfer to better conditions of 9,604 persons, has been prepared jointly by the Newcastle-on-Tyne Housing, Health and Insanitary Property Committees. The Housing Committee has decided to recommend the City Council to advance this scheme as their five-years' programme under the Housing Act, 1930. A capital expenditure of more than £500,000 is involved and the scheme is additional to that approved earlier in the year for the provision of 3,000 new Corporation houses at a cost of approximately £1,000,000.

Mr. William Anderson.

We regret to record the death of Mr. William Anderson, of the firm of Messrs. P. & W. Anderson (Glasgow), Ltd., at Glasgow. Mr. Anderson was one of the best-known figures in the building trade in the West of Scotland, and among the work which he personally superintended was the construction of the addition to the Royal Infirmary, the erection of the Royal Technical College, and the construction work on the new Mitchell Library. Mr. Anderson, who was in his 81st year, took an active part in the work of the firm, and was at business a few hours before his death. He was a member of the Incorporation of Masons.

Decoration in Winter.

The house painting and decorating trade is one of those which suffer considerably during the winter months. The public, local governing authorities, landlords and large firms, who have properties under their control, can play a large part to help matters by putting as much interior painting in hand as possible during the winter months. This can be done equally well in winter as in summer. A considerable amount of arrears in painting work is waiting to be carried out; neglect means deterioration and lowered value so far as property is concerned.

New Park, Enfield.

Subject to the approval of the Ministry of Health, an historic estate of over 250 acres, within eleven miles of Euston Station, is to become a public park. Middlesex County Council has agreed to the purchase of Whitewebbs Park, Enfield, for a sum of £23,000, of which it will contribute three-quarters. The remainder of the purchase price will be found by the Enfield Urban District Council. It was originally part of the old "Enfield Chase"—wild, heavily-wooded common land, where James I. hunted.

1930-31 Income Tax Manual.

The method of calculating Mr. Snowden's tax proposals for 1930-31 will be found set out clearly and concisely in Tolley's Handbook of Income Tax, Super Tax, and Surtax published by Waterlow & Sons, Ltd., Birchin-lane, E.C.3 (price 1s.). Included are tables for increased rates and extended allowances, new assessment system for 1930-31 in place of the average assessment of income.

New Secondary Schools, Sheffield.

A suggestion that the scheme for the erection of secondary schools for boys and girls at High Storrs should be postponed for one year has been rejected by the Sheffield Education Committee. Tenders will now be invited for the erection of the schools, the estimated cost of buildings being £117,500.

GROUP PENSION INSURANCE

THE modern pension plan and group insurance idea now being operated in many progressive business enterprises illustrate two things to a remarkable degree. One is the genuine co-operation and good will which exists between employers and workers in most successful enterprises, and the other is the great advantages which can be secured for the benefit of individual employees when the wholesale purchasing power of the employer is utilised for their benefit. A typical group insurance and pension scheme of the most modern type, covering both staff and factory workers, has recently been installed by Messrs. A. T. Morse, Sons and Co., Ltd., Plaistow, paint manufacturers, in co-operation with their workers. This scheme provides £100 of life insurance for all factory workers, together with a pension of £1 annually from age 65 for each year of membership in the scheme. The company has purchased pensions for past service of all factory workers of an equal amount, so that in effect each worker's pension has been accumulating since he entered the company's service, no matter how long ago. The company pays the entire cost of the scheme except for a weekly contribution of one shilling from the employee. When an employee retires on pension the company will keep the £100 of group insurance in force at its own expense for one year for each five years of service completed prior to retirement. In the event of total and permanent disability before age 60 the £100 of life insurance will be paid directly to the member, with interest, in 40 monthly instalments of £2 12s. 6d. The scheme has been placed with the Metropolitan Life Insurance Company of New York, whose British headquarters are at Bush House, Aldwych, W.C.2.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

DECEMBER 29.

Bingley.—Installation.—Low pressure hot water at Grammar school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Doncaster.—Sewers.—Sewers and surface water drains and construction of roads in connection with the erection of 292 houses on Intake estate, for C.B. R. E. Ford, Housing Surveyor, 3, Priory-place. Dep. £2.

Hemsworth.—Installation.—Extension of electric lighting at Hemsworth Secondary school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Hereford.—Market.—2 new sale rings, complete with rostrums, at Cattle Market, for T.C. City E.

Merton.—Alterations.—To existing Council Offices in Kingston-rd., Merton, S.W.19, for Merton and Morden U.D.C. G. Jerram, E. and S.

Richmond (Surrey).—Chambers.—Chamber to accommodate 2 electrically-driven centrifugal pumps at their river water intake in Petersham Meadow, and for a chamber to accommodate 1 electrically-driven centrifugal pump at Deep Well in Terrace-gardens, for T.C. H. P. Williamson, E., Hotham House, Heron-court, Richmond. Dep. £2.

Scarborough.—Alterations.—To Floral Hall, for T.C. H. W. Smith, B.E.

Southport.—Clinic.—Maternity hospital and clinic in the Southport Infirmary grounds, Curzon-rd., for Miss C. Hartley, 11, Oxford-rd., Birkdale. A. E. Jackson, B.E. Dep. £2 2s.

Southport.—Market.—New market in King-st. and Market-st., for C.B. H. Langman, F.R.I.B.A., architect, Westminster-bigs., 106, Lord-st., Southport. Dep. £2.

Stockport.—Painting.—External at Longfield open-air Council school and Cheadle Heath Council school, for E.C. A. Lawton, Secretary of Education.

DECEMBER 30.

Blackheath, Birmingham.—Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Ealing.—Building.—Transformer sub-station at Longfield-av., Ealing, W.5, for T.C. Borough Electrical Engineer. Dep. £1 1s.

Hanley.—Shed.—Shed, garages and workshops at Hanley, for Staffordshire Potteries Water Board. H. C. Frain, E., Albion-st., Hanley, Stoke-on-Trent. Dep. £2.

Horley.—Repairs.—To 14 cottages at Meath Green, Horley, for Reigate R.D.C. Clerk.

Lampeter.—Offices.—Chapel vestry and offices for Trustees of Zoar Congregational Church, Lampeter. T. Jay Evans & Son, F.A.R.I.B.A., 120/122, Victoria-st., London, S.W.1. Dep. 10s.

Wisbech.—Heating.—Installation of heating apparatus at the Post Office and Telephone Exchange, Wisbech, for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-st., S.W.1. Dep. £1 1s.

DECEMBER 31.

Aldingbourne, Hunston and New Fishbourne.—Houses.—Erection of, in the above named parishes, for the Westhampnett R.D.C. The Clerk, Council Offices, Pallant House, Chichester.

Amersham.—Houses.—Chalfont St. Peter housing scheme (Glebe site), third portion; 40 houses, drainage, paths, fences and gates, and estate roads and paths; Chalfont St. Giles' housing scheme (Narcott-lane site), second portion; 16 houses and estate roads and paths, for R.D.C. Burgess, Holden & Watson, architects, Beaconsfield. Dep. £2 2s.

Annfield.—Alterations.—Alterations and improvements to plain boys' council school, for Durham County E.C. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

Bedford.—Cottages.—12 non-parlour type at Goldington, and for 8 non-parlour type at Wymington, for R.D.C. F. R. Chapman, S. Dep. £2 2s. each.

Coundon.—School.—To accommodate 816 scholars, for Durham C.C. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

Hinckley.—Houses.—30 houses off West-st., Earl Shilton, and six houses in Cooks-lane, Sapcote, for R.D.C. E. H. Crump, architect, Barclays Bank-chams.

Kegworth.—Houses.—For the Castle Donington R.D.C. The Clerk, Council Offices. Dep. £3 3s.

Newbury.—Houses.—Two houses in parish of Brimpton, for R.D.C. E. G. Hampshire, architect and surveyor, Wash Common, Newbury. Dep. £2.

Ryhope.—School.—For Durham County E.C. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

Shoreham, Kent.—Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Stonebridge, N.W.—Additions.—To Wesley-rd. Council school, for the Willesden D.C. Director of Education, Education Office, Dyne-rd., Kilburn, N.W.6. Dep. £1 1s.

Tutbury.—Houses.—Six pairs in Clay's-lane, Branston, for R.D.C. R. S. Litherland, L.R.I.B.A., 10, High-st., Burton-on-Trent. Dep. £1 1s.

West Riding.—Eaves.—Provision of cast-iron eaves gutters and rainwater pipes, at Penistone Poor Law Institution; eaves gutters at Grenoside Poor Law Institution; external painting at Grenoside Poor Law Institution; bathroom at Giggleswick Poor Law Institution; installation of hot water apparatus at Giggleswick Poor Law Institution; erection of boiler house at Giggleswick Poor Law Institution; erection of 2 fire escapes at Giggleswick Poor Law Institution; paving to main yard at Giggleswick Poor Law Institution, for C.C. P. O. Platts, A.R.I.B.A., West Riding Architect, County Hall, Wakefield.

JANUARY 2.

Ireland.—Building.—National school at Doocastle, Co. Mayo; enlarging Ballintubber National school, Co. Mayo, for Commissioner of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1 each.

Kingsley and Newton.—New Council school.—For the Chester E.C. County Architect, Newgate-st., Chester. Dep. £2 2s.

JANUARY 3.

Cramlington.—Fences.—At Newtown, for Cramlington U.D.C. Clerk.

Edinburgh.—Houses.—84 three-apartment houses at Niddrie Mains housing scheme, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

Enniskillen.—Houses.—Ten houses, three in Mary-st. and seven in Strand-st., for U.D.C. B.S. Dep. £2 2s.

Falmouth.—Houses.—At Penwerris, for T.C. H. E. Tressider, B.S. Dep. £2 2s.

Staffordshire.—Building.—For Brownhills, Ogley Hay senior girls' new Council school—erection and completion, to accommodate 360 children; Brownhills, Walsall Wood senior boys' Council school—extensions, comprising assembly hall, science room, staff room, cloakrooms, etc.; Burntwood Chase-terr., senior boys' and senior girls' new Council schools—erection and completion, two schools each to accommodate 400 children; Short Heath senior mixed new Council school—erection and completion, to accommodate 400 children; Wednesfield junior mixed new Council school—erection and completion to accommodate 360 children; and Wednesbury boys' high school—extensions, comprising two additional classrooms, library, art room, etc., for E.C. F. A. Hughes, Director of Education, County Education Offices, Stafford. Dep. £4 4s. each.

JANUARY 5.

Caerphilly.—Erection.—Of public convenience, omnibus shelter, cloak room and site improvements, Cardiff-rd., for U.D.C. T. H. Richards, S. Dep. £2 2s.

Camelford.—Houses.—8 parlour type at Delabole, 4 non-parlour type at Delabole, 4 parlour type at Lanteglos, Camelford, 4 parlour type at St. Breward, for R.D.C. A. R. Hansford, Building Surveyor. Dep. £2 2s.

Cirencester.—Alterations.—Also additions to swimming bath, for U.D.C. W. Jones, S.

Cranham.—Houses.—For the Romford R.D.C. Clerk, 16a, South-st., Romford. Dep. £2 2s.

Fareham.—Houses.—12 on housing site, Gordon-rd., for U.D.C. H. T. Privett, S.

Hastings.—Extensions.—Of Johns-place, Cambridge-rd., for E.C. B.E., 37, Wellington-sq. Dep. £2 2s

Hastings.—Extension.—To Hollington Council school, Battle-rd., for E.C. B.E., 37, Wellington sq. Dep. £2 2s.

Hornsea.—Lavatories.—Public lavatories and shelter at Hall Garth-pk., for U.D.C. S.

Hucknall.—Houses.—24, on Storth Meadow estate, for U.D.C. H. M. Aitchison, architect and surveyor. Dep. £2 2s.

Leigh, Lancs.—Two Schools.—Erection of, in Manchester-rd. and Westleigh-lane. Town Clerk, Town Hall. Dep. £2 2s.

***Morecambe and Heysham.**—Heating Installation.—In the proposed new Municipal Buildings. Borough Engineer, Town Hall. Dep. £2 2s.

JANUARY 6.

***Clacton-on-Sea.**—Reconstruction.—Of retaining wall, etc., for the U.D.C. Clerk to the Council, Council Offices. Dep. £2 2s.

Clutton.—Cottages.—4 non-parlour at Litton, for R.D.C. Thomas & Morgan & Partners, architects, 23, Gelliwastad-rd., Pontypridd. Dep. £2 2s.

Cork.—Houses.—168 at Turner's Cross housing site, for C.B. Chillingworth and Levie, architects, 11, South Mall. Dep. £1.

***Hornchurch.**—Enlargement to village Council school, for the Essex C.C. County Architect, Springfield Old Court, Chelmsford. Dep. £1 1s. (to the County Accountant, Duke Street).

***Romford.**—Temporary Building, at the County High School for Girls, for the Essex C.C. County Architect, Springfield Old Court, Chelmsford. Dep. £1 1s. (to the County Accountant, Duke Street).

JANUARY 7.

Bangor Teifi.—Rebuilding.—St. David's Church, Bangor Teifi, near Llandyssul. D. Davies & Son, architects, Penrhiwllan, Henllan.

Brighton.—Houses.—On the Rottingdean and Whitehawk housing sites, for the Corporation. Town Clerk, Town Hall. Dep. £2 2s.

***Chadwell Heath.**—Alterations and Additions.—To premises for the Dagenham U.D.C. The Clerk, Council Offices, Valence House. Dep. £2 2s.

Datchet.—Pump House.—Erection of, for the Slough U.D.C. Engineer & Surveyor, Council Offices, William-st., Slough.

JANUARY 9.

Belfast.—Lodges and Gate Piers.—At the new Parliament Building, for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JANUARY 10.

Caerphilly.—Houses.—20 non-parlour, at The Grange, and 30 non-parlour type at Pwllypant, Llanbradach, and construction of roads and sewers in connection therewith, for U.D.C. B. Jenkins, Housing Officer. Dep. £2 2s.

***Canterbury.**—Public Conveniences.—Erection of on the Star Brewery Site, Broad-st. City Engineer and Surveyor, Municipal Buildings. Dep. £1 1s.

Rainford.—Houses.—12 working-class dwellings off Ormskirk-rd., for U.D.C. S. Dep. £2 2s.

JANUARY 12.

***Croydon.**—Houses.—Erection of, at Downsview Road Estate, for the Corporation Town Clerk, Town Hall. Dep. £3 3s.

Grays.—Extension.—Of free library, for Grays Thurrock U.D.C. H. S. Goodall, E. and S., 57, High-st. Dep. £2 2s.

Hazel Grove and Bramhall.—Conveniences.—Sanitary conveniences near Cock Hotel, London-rd., Hazel Grove, for U.D.C. S., 251 London-rd., Hazel Grove. Dep. £2 2s.

North Witchford.—Houses.—Eight on site at Doddington, for R.D.C. Fovargue and Jakens, architects, The Causeway, March. Dep. £2 2s.

Nottingham.—Reroofing.—Of main stand, size approximately 132 yards by 16 yards (cambered), for Notts County Football Club. Secretary, Meadow-lane.

Smethwick.—Heating, etc.—For Bearwood Baths, for C.B. R. Fletcher, B.E. Dep. £5.

JANUARY 13.

Newcastle-on-Tyne.—Reconstruction of Roof.—At the County Court, for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JANUARY 14.

Chichester.—Bungalow.—Bungalow residence Hospital.—Erection of at the Graylingwell Mental Hospital. Clerk, 9, West Pallant. Dep. £5 5s.

Headington, Oxford.—Sorting Office.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1 Dep. £1 1s.

London, E.—Baths.—Erection and completion of branch baths at Shacklewell-lane, for the Hackney Borough Council. The Chairman, Town Hall, Mare-st., Hackney, E.8. Dep. £3 3s.

Stoke-on-Trent.—Repairs.—To houses at Trent-terr., Bucknall, for T.C. E. B. Sharpley, T.C.

JANUARY 15.

Mount Pleasant, E.C.—Extension of Sub-Station, etc.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JANUARY 16.

Midhurst.—Post Office.—Erection of, for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JANUARY 19.

North-East England.—Foundations.—Site works, foundation works and buildings in area of North-East England electricity scheme, for Central Electricity Board. R. H. Fox, secretary, Trafalgar-buildings, 1, Charing Cross, W.C.2. Dep. £2 2s.

***Romford.**—Headquarters.—Erection of, for the Essex Territorial Army Association. The Secretary, Market-rd., Chelmsford. Dep. £2 2s.

Wark-on-Tyne.—Wall.—Stone wall to churchyard extension, for S. Michael's Church Council. Rector, Wark-on-Tyne.

Warwick.—Alterations.—And additions to the County offices. A. C. Bunch, County Architect, 27, Binswood Avenue, Leamington. Dep. £2 2s.

JANUARY 26.

Tottenham, N.15.—Alterations and Additions.—At Stamford-hill school, for the Tottenham E.C. Clerk, Education Offices, Philip-lane, S. Tottenham. Dep. £2.

NO DATE.

Banbury.—Houses.—76 houses at Easington, for T.C. B.S. Dep. £2 2s.

Filey.—Extensions.—Exhauster house building and demolition of existing building, meter-house building, building foundations for plant, for U.D.C. H. E. Bloor, Consulting Engineer, Clifton, York.

Kendal.—Hall.—Village hall at Crosthwaite. G. Shaw, L.R.I.B.A., architect, 45, Highgate, Kendal.

MATERIALS, etc.

DECEMBER 29.

Bournemouth.—Cement.—For T.C. F. P. Dolamore, B.E.

Isle of Wight.—Bitumen Compounds.—For C.C. A. J. A. Harris, County Highways Surveyor, County Hall, Newport, I.W.

DECEMBER 30.

Northumberland.—Road Materials.—For C.C. A. Cheyne, C.S.

DECEMBER 31.

Lancashire.—Tar.—160,000 gallons of tar for tar-spraying, for C.C. P. Schofield, C.S., Preston.

London.—Tar, etc., and tar-spraying of roads, for Lambeth B.C. O. Catlin, B.S.

Montgomery.—Broken Granite.—For C.C. Wm. Owen Jones, C.S., County Offices, Berriew-st., Welshpool.
Rhondda. — Road Materials. — For U.D.C. S. Taylor, E. and S.

JANUARY 1.

Norfolk.—Road Materials.—For C.C. S. H. Warren, C.S., 9, Queen-st., Norwich.

JANUARY 3.

Soke of Peterborough.—Highway Materials—For C.C. Harry Russell, C.S., Peterborough.
West Riding.—Road Materials.—West Riding Surveyor, County Hall, Wakefield.

JANUARY 5.

Middleton.—Road Materials.—For T.C. B.E.
Staffordshire.—Granite, etc.—For C.C. C.S., Lloyds Bank-chambers, Stafford.

JANUARY 8.

Leeds.—Road Materials.—For Highway Dept. E. W. Cockerlyne, Highways Engineer, 155, Kirkstall-rd.
London.—Highway Materials.—For St. Pancras B.C. E. W. Swinstead, B.E. and S.

JANUARY 10.

Bexley.—Highway Materials.—For U.D.C. G. A. Joy, S.
Blackburn.—Road Materials.—For C.B. H. M. Webb, Borough and Water Engineer.
Dorset. — Road Materials. — For C.C. C.S., Dorchester.

JANUARY 12.

Lindsey (Linco).—Highways Materials.—For C.C. A. G. Bradshaw, C.S., Newland, Lincoln.

JANUARY 16.

London. — Bricks, etc. — For Islington B.C. Electrical Engineer, Electricity Works, 60, Edengrove, Holloway, N.7.

JANUARY 19.

London.—Building Materials.—For Camberwell B.C. W. Bell, B.E. and S.

JANUARY 21.

Southend-on-Sea.—Building Materials.—For C.B. Borough Electrical Engineer and Manager, Electricity Works, London-rd.

JANUARY 28.

Cairo.—Asphalt.—For Egyptian Ministry of Public Works, Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. B.X. 6909.)

ENGINEERING, IRON AND STEEL.

DECEMBER 29.

Addingham.—Repairs.—To Addingham suspension bridge, which carries public footpath over River Wharf, near Addingham, Skipton, for West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Dep. £1.
Dumfries.—Drainage.—Opening and refilling trenches for and providing, laying and jointing about 3,500 lin. yds. of fireclay sewers, ranging from 6 in. to 9 in. diameter and about 650 lineal yards of effluent distributors of 6 in. diameter; construction of sewage works and road of access thereto and other relative work, for C.C. Warren and Stuart, engineers, C.C.E., 94, Hope-st., Glasgow. Dep. £1 1s.
Maybole.—Water Supply.—Supplying and laying 9-in. bitumen-lined steel pipe, to form a new water main about 3 miles in length; constructing an additional sand filter; raising concrete wall of reservoir, and other associated work, for T.C. Gilbert Thomson & Son, chartered civil engineers, 164, Bath-st., Glasgow, C.2. Dep. £2 2s.
Warrington.—Sewer.—Concrete egg-shaped relief sewer, total length about 600 yds., dimensions 54 in. by 81 in. and 62 in. by 93 in., together with storm overflow chamber, manholes, river outlet and other appurtenant works, for C.B. John Taylor & Sons, engineers, Caxton House, Westminster, S.W.1. Dep. £5.

DECEMBER 30.

Glaisdale.—Reconstruction.—Of Glaisdale bridge over River Esk in North Riding of Yorkshire, for Surrey C.C. County Engineer, County Hall, Kingston-on-Thames. Dep. £2 2s.
Kincardine.—Bridge.—Widening and improvement of Cowie bridge in reinforced concrete with masonry facings and also realignment of the approaches thereto, for C.C. D. J. Bell, C.E., C.E. and S., Stonehaven. Dep. £2 2s.
Kincardine.—Bridge.—Widening and improvement of Brotherton bridge in reinforced concrete with masonry facings and also realignment of the approaches thereto, for C.C. D. J. Bell, C.E., C.E. and S., Stonehaven. Dep. £2 2s.
Kincardine.—Bridge.—Widening and improvement of Den of Finella bridge in reinforced concrete with masonry facings and also realignment of the approaches thereto, for C.C. D. J. Bell, C.E. and S., Stonehaven. Dep. £2 2s.
Kincardine.—Bridge.—Reinforced concrete bridge over the Benholm Den, for C.C. David J. Bell, C.E. and S., Stonehaven. Dep. £2 2s.
Southgate. — Improvements. — Widening and making-up of Chequers-way, construction of about 260 yds. of 9-in. dia. concrete pipe surface water sewer, with manholes, and erection of reinforced concrete bridge spanning Pymmes Brook, for U.D.C. R. Phillips, S. Dep. £2.
Stewartry of Kirkcudbright.—Drainage.—4-in. pipe partly iron and partly fireclay, mile in length; break-pressure tank; a mile of iron pipe to and through village, 3 in. and less in dia.; about 250 yds. of 9-in. outfall drain in fireclay; a sedimentation tank; overhauling existing drains and construction of manholes; other associated work at Carsphairn, for C.C. Gilbert Thomson and Son, chartered civil engineers, 164, Bath-st., Glasgow, C.2. Dep. £2 2s.

DECEMBER 31.

Bridgwater.—Widening.—In reinforced concrete, and contingent works, Victoria-rd. bridge, for T.C. R. A. Watson, B.E. Dep. £2 2s.
Exmouth.—Pool.—Open-air swimming pool, etc., adjacent to Esplanade, for U.D.C. S. Hutton, E. Dep. £7 7s.
Newquay.—Wall.—20 lin. yds. of sea wall, 23 ft. high, together with retaining and face walls, approximately 50 ft. in height, with all excavation, filling and other works incidental thereto, at Towan Beach, adjoining South Quay-hill, for U.D.C. C. W. Walters, E. and S. Dep. £5.
St. Austell.—Sewerage.—4,800 yds. of 6-in., 7-in. and 8-in. stoneware pipe sewers, with manholes, settlement tank, percolating filter, and incidental works, at Penwithick, for R.D.C. Lemon and Blizard, consulting engineers, 24, Lockyer-st., Plymouth. Dep. £3 3s.

JANUARY 1.

Axbridge.—Water Supply.—For North Marsh parish, for R.D.C. Parker Pearson & Ross Hooper, engineers, Dallas-chams., Chippenham. Dep. £5.
Egypt.—Installation.—Of water works at Achmoun, for Egyptian Ministry of Interior. Department of Overseas Trade, 35, Old Queen-st., S.W.1. Ref. A.X.10,518.)
Exeter.—Resewering 5,430 yds. of sewers and surface water drains, of diameters ranging from 6 in. to 33 in., in stoneware and concrete pipes, the provision of manholes, and the construction of screening chamber, pump well and pit and pump house, in parish of St. Thomas, for T.C. R. H. Dymond, City E. and S., 7, Southernhay West. Dep. £3.

JANUARY 3.

Abingdon.—Water Supply.—For parishes of Sutton Courtenay, Drayton, Steventon, and Milton, for R.D.C. Guthrie Allsebrook, 29, Crown-st., Reading. Dep. £3 3s.
Bedford.—Sewer.—500 yds. of 9 in. foul sewer, 360 yds. of 15 in. and 600 yds. of 9 in. surface water sewers, together with contingent works, also for construction of 900 lin. yds. of roads and footpaths and resurfacing 500 lin. yds. of roads and footpaths and provision of kerbs and channels, for T.C. N. Greenshields, B.E. and S. Dep. £2 2s.

JANUARY 6.

Sturminster Newton.—Water Supply.—Intake works and about 13 miles of 5-in., 4-in., 3-in., and 2-in. mains, a covered service reservoir 20,000 gallons capacity, and other works incidental thereto at Stalbridge, for R.D.C. A. P. I. Cotterell and Son, chartered civil engineers, 54, Victoria-st., Westminster, S.W.1. Dep. £2 2s.

JANUARY 7.

Chertsey.—Sewerage.—Laying of approximately 2,378 ft. 7 in. dia. stoneware pipes, 1,921 ft. of 9 in. dia. stoneware pipes, 1,745 ft. 6 in. C.I. rising main, 2,740 ft. 3 in. C.I. air pressure main, with valves, etc.; also No. 16 manhole shafts, dual ejector station complete, and provision for lateral connection of certain properties to the new sewers, together with other appurtenant works, for R.D.C. H. Beeney (Capt.), E. and S.

JANUARY 8.

Nottingham.—Bridge.—Over L.M. & S. Rly., Mansfield branch, on new-rd., Ratford-rd., to Nuthall-rd., for T.C. T. Wallis Gordon, City E. and S. Dep. £2.
Nottingham.—Steelwork.—102 tons of steelwork in plate girders, stanchions, cross bracing floor ties, bearing plates, etc., for bridge over L.M. & S. Rly., Mansfield Branch on new rd., Radford-rd., for T.C. T. Wallis Gordon, City E. and S. Dep. £2.

JANUARY 9.

Blaby.—Drainage.—Laying of about 6 miles of cast-iron and stoneware pipe sewers from 6 in. to 15 in. diam., and construction of tanks, filters, sludge lagoons, pumping stations and other works, in parishes of Brannstone and Leicester Forest East, for R.D.C. Pick, Everard, Keay and Gimson, engineers, 6, Millstone-lane, Leicester. Dep. £2 2s.
Sandwich.—Main.—1,085 yds. of 9-in., 12-in. and 15-in. sewers, 789 yds. of 7-in. and 12-in. cast-iron rising main, 2 pumping stations, pumps, etc., for T.C. Silcock & Simpson, 25, Victoria-st., Westminster, S.W.1.
Shardlow.—Sewerage.—Sewerage works at Sandiacre, for R.D.C. Elliott & Brown, chartered civil engineers, Burton-buildings, Parliament-st., Nottingham. Dep. £3 3s.

ROAD, SEWERAGE, AND WATER WORKS.

DECEMBER 29.

Doncaster.—Sewers.—Sewers and surface water drains and construction of roads in connection with 292 houses, for Corporation. R. E. Ford, Housing Surveyor, 3, Priory-place. Dep. £2.
Glossop Dale.—Main.—Providing, laying and jointing complete of about 560 lin. yds. of 4-in. cast-iron water main at Charlesworth, for R.D.C. Brady and Partington, civil engineers, Chapel-en-le-Frith. Dep. £1.
Hereford. — Sewerage. — And street works on Hunderton site, for T.C. City Engineer, Town Hall. Dep. £2 2s.
Macclesfield.—Sewers.—Laying of stoneware sewers and cast-iron sewers over River Bollin, and construction of manholes, etc., at Lower Heyes, for R.D.C. J. H. Walters, E. and S., Moody-chams., Moody-st., Congleton. Dep. £2 2s.
Merton and Morden.—Widening.—Also improvement of Cannon Hill-lane, at north end, approximate length 136 yds., for U.D.C. G. Jerram, S. Dep. £1.

DECEMBER 30.

Kingston-upon-Thames. — Roads — Roads and sewers on housing estate for T.C. B.S. Dep. £2 2s.
London.—Tar.—Coating with tar or bituminous material about 70 miles of roads in borough and at Council's Cemetery, East Finchley, N.2, for Islington B.C. B.E.
Manchester.—Drainage.—Main drainage work, Moston-lane, from 5, Rochdale-rd. to Blue Bell-av., Moston, for Corporation. City E. Dep. £5 5s.

DECEMBER 31.

Kingsbury.—Widening and making-up section of Stag-lane between Edgware-rd. and De Haviland's works, Stag-lane Aerodrome, and surfacing with bituminous macadam, approximate length 350 yds., for U.D.C. R. C. N. Newport, E. and S. Dep. £2 2s.
London.—Mains.—Distributor cables and earthenware pipes in selected thoroughfares, for Islington B.C. Borough Electrical Engineer, 60, Edengrove, Holloway, N.7.
Wickersley.—Asphalting.—At Council school, for West Riding C.C. A. Adcock, divisional clerk, Education Office, Godstone-rd., Rotherham.

JANUARY 1.

Long Eaton.—Making-up.—Of Breedon-st. (part of), Byron-av., Milford-av., Roosevelt-av., Lake-st., for U.D.C. H. Raven, E. and S. Dep. £2 2s.

JANUARY 2.

Aberdare.—Widening.—At Harriet-st., Trecynon, and Penyard Llwydcoed, for U.D.C. S. Dep. £2 2s.
Richmond (Surrey).—Paving.—Levelling, metalling, paving and making good Castlegate, for T.C. J. W. Trodd, B.E. Dep. £1 1s.
Wimbledon. — Making-up. — Of Ernle-rd., for length of approximately 1,125 ft., for T.C. B.E. and S. Dep. £2 2s.

JANUARY 3.

Dartford.—Making-up.—Of Station-rd., Longfield, and appurtenant works, for R.D.C. S. Dep. £2 2s.

JANUARY 5.

Chingford.—Road.—1,570 yds. super. of reinforced concrete roadway, together with paths, etc., at Beresford-rd., for U.D.C. S. J. Hellier, E. and S. Dep. £1 1s.
Flintshire.—Widening.—Road widening on St. Asaph-Holywell-rd. from Tyr Ali, Rhuallt, to Pant Ifan-bridge, Rhuallt, for C.C. R. G. Whitley, chartered civil engineer and architect, Mold. Dep. £3 3s.
Hendon.—Widening.—Kerbing, channelling, road widening and other works in connection with Edgware-road improvement from Hay-lane to Wakemans-hill. A. O. Knight, E. Dep. £3 3s.
Hendon.—Improvements.—Making-up of Wykeham-rd., Dallas-rd., Holders Hill-av., Holders Hillcres., Holders Hill-drive, Holders Hill-gdns., The Ridge, Waverley-grove, Woodcroft-av., Lyndhurst-av., Eversfield-gdns., for U.D.C. A. O. Knight, E. and S. Dep. £5 5s.
London.—Pipes.—90 tons of from 16 in. to 8 in. cast-iron pipes at Northern Outfall Works, Beckton, E.6, for L.C.C. Chief E., Old County Hill, Spring-gardens, S.W.1. Dep. £1.

JANUARY 6.

Limerick. — Extension. — Provision, laying and jointing of about 2,000 yds. of 15-in. C.I., concrete-lined pipe, which is to be laid from Garryowen Reservoir, through private grounds, and thence through Carey's-rd. to crescent, for Corporation. Pierce F. Purcell, consulting engineer, Ashton, Killiney, Co. Dublin. Dep. £5.
Stockport.—Valley Supply.—Laying and jointing line of cast-iron pipes, 30 in. in dia., and about four miles in length, along main rd. between Whaleybridge and Disley, for Corporation. G. H. Hill and Sons (Manchester), civil engineers, 40, Kennedy-st., Manchester. Dep. £5 5s.

JANUARY 7.

Malden.—Paving.—Also kerbing footways on west side of Market-hill from High-st. corner to Mr. Bonner's premises, and on south side of Mill-rd. from 2, Mill-rd. to Wants-rd. corner, for T.C. B.E.

JANUARY 8.

London.—Paving.—Providing and laying bituminous surfacing material and incidental works in the carriageways of Edenham-st. and Ashburn-place, Courtfield-rd to Wetherby-gardens, for Kensington B.C. B.E.
Slough.—Roads.—Roads and sewers in connection with housing scheme No. 3, for U.D.C. A. Bromly, E.
Southend-on-Sea.—Extension.—New 60-ft. road from Kensington-rd. to Huntingdon-rd., together with necessary surface water drains and incidental works in connection thereto, for T.C. R. H Dyer, B.E and S. Dep. £2.
Twickenham.—Improvements.—Of Sixth Cross-rd. and portion of Staines-rd. for T.C. G. R. King, E. and S. Dep. £2 2s.

JANUARY 10.

Teddington.—Reconstruction.—Also widening and repaving of Station-rd., for U.D.C. E. Bostock, S.

Public Appointments

DECEMBER 31.

Stoke-on-Trent. — Architectural Assistants. A. Burton, City Engineer and Surveyor, Town Hall.

JANUARY 1.

Southall, Middlesex.—Town Planning Assistant required by the U.D.C. J. B. Thomson, Engineer and Surveyor, Town Hall.

JANUARY 3.

Tilbury.—Town Planning Assistant required by the U.D.C. Clerk, Council Offices, Civic Square.

JANUARY 5.

***Sheffield.**—Four Architectural Assistants (Temporary).—City Architect, Town Hall.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council: R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.: Surveyor, S.: Engineer, E.

Ampthill.—U.D.C. received from E. G. Geeves, architect, lay-out plan of new housing site in Station-rd., which was approved.

Audenshaw.—S. Hadfield, builder, Moss View, Droylesden-rd., prepared plans for 28 houses on Oak House site, Droylesden-rd., and Lumb-lane.

Bakewell.—R.D.C. to build 100 houses in various parts of rural district.

Barnes.—U.D.C. approved:—Eight detached houses with garages, Suffolk-rd., R. B. Rowell; six shops, Upper Richmond-rd., Walter Hearn & Chater; two houses, 8 and 10, Suffolk-rd., R. B. Rowell.—Council received Surrey C.C. approval for alterations and additions at Worple House. Alterations estimated at £670.

Beeston (Notts).—W. Radford and Son, civil engineers, Albion Chambers, Nottingham, preparing scheme for extensions to sewage works for the U.D.C. Estimated £18,000.

Bingley.—U.D.C. to consider extensions at the Electricity Works.—West Riding E.C. to erect a new technical school.

Birkenhead.—Birkenhead Brewery Co., Ltd., propose £20,000 hotel at corner of Borough-rd. and Preston-rd. West, Prenton. Plans by resident architect, A. Norman Coveney, Birkenhead Brewery Co., Ltd., Oxton-rd.

Birmingham.—Parochial Church Council of St. Mary's Handsworth Parish Church proposing parish hall in Church-hill, Hamstead-rd.

Blackpool.—Corporation obtained option of purchase 21 acres of land off Highfield-rd., South Shore, where it is proposed to erect 200 houses and council school. Plans by B.S.

Bromley.—R.D.C. approved: Kent C.C. school in Hawes-lane; six pairs of houses, Avenue; nine houses, Coney-rd; and six pairs of houses on the Coney-hill estate.

Bromley.—T.C. approved nine houses Lower Gravel-rd., W. E. and S. Rumph.

Bury.—T.C. approved plans of partition, Co-operative Society's premises, Risbygate-st.; extension, cold store and pasteurising room at St. Edmund's Brewery.

Caterham and Warlingham.—U.D.C. approved:—Six houses, Livingtone-rd., W. R. Quested; ten houses, Limpsfield-rd., White and MacDonald.

Chesterfield.—Free Church Council propose a Sunday School on Boythorpe housing estate.

Chorlton-cum-Hardy.—Directors of Manchester Crematorium, Ltd., propose additions and improvements to rear of buildings off Nell-lane, Chorlton-cum-Hardy. Plans by J. H. Sellers, architect, 78, King-st., Manchester. Contract not yet placed.

Clutton.—R.D.C. to build 12 non-parlour houses.

Coulsdon and Purley.—Application be made by U.D.C. to M.H. for sanction to £4,825 for purchase of land on Gidd Hill estate, Coulsdon, for housing purposes.—Plans approved:—J. P. Oldaker, 4 shops with 7 flats over, junction High-st. and Whytecliffe-rd., Purley; W. & R. Barrs, 3 pairs semi-detached houses, The Drive, Coulsdon; Messrs. Abbey, 3 new roads, sewers, etc.; E. O'Sullivan, Ltd., house and garage, Hawkhirst-rd., 2 bungalows, Valley-rd., and bungalow, Valley-rd., Wenley; Chittenden & Simmons, Ltd., 3 detached houses, Stoneyfield-rd., Coulsdon; H. P. Hawkes, 2 pairs semi-detached houses, Briton-cres., Sanderstead.

Darlington.—T.C. approved four terrace houses in Osborne-rd., J. W. Carter; four houses David-rd., R. Blackett and Co.; alterations to "Unicorn" hotel, High-st.; four houses, Brisbane-grove, G. Fordy; alterations, "Stockton Arms" hotel, Hartburn.

Dewsbury.—C.B. approved:—Dewsbury Pioneers' Co-operative Society, Ltd., alterations to operating and rewinding room in cinema; Kirkstall Brewery Co., Ltd., alterations, "Ravenswharf" Hotel, Huddersfield-rd.

Dewsbury.—Corporation to invite tenders for service reservoir at Squirrel Hall estate, Staincliffe.

East Dean.—R.D.C. to erect 10 houses at Cinderford, six cottages at Soudley, and a similar number at Brierley. Mr. Whitehouse, S.

Farnham.—R.D.C. approved:—Additions to Danesfort, Gong Hill, Lower Bourne, Clement Davies.

Faiceshill.—R.D.C. approved:—Four pairs of semi-detached houses, Watery-lane and Penny Park-lane Keresley. W. H. Broad.

Glasgow.—Council considering erection new hall Balmore.—New fire-station for North-West and City. Architect, T. Somers, City Engineer, George-sq.

Glasgow.—Reconstruction scheme corner of West George-st. and West Nile-st. Architect, J. Miller, 15, Blythswood-sq.

Hambledon.—R.D.C. to raise loan of £2,850 for sewerage at Cranleigh; M.H. inquiry held.

Hull.—Co-operative Society, Ltd., Jarratt-st., to erect dairy premises. Plans by W. A. Johnson, F.M.S.A., Architect's Department, Co-operative Wholesale Society, Ltd., Balloon-st., Manchester.

Jarrow.—C. S. M. Beardall, 59, Wellington-rd., New Brighton, preparing plans for premises in Ormonde-st., previously occupied by Gibbon and Knox, tailors.

Kingston-on-Thames.—T.C. to lease land on housing estate for electricity sub-station.—Bain and Johnson are architects for proposed new baths, for which tenders being invited.—Council to erect 6 houses in Norbiton Common-rd.—Council to purchase 17, High-st., for showrooms. Plans passed:—11, Fife-rd., alterations and additions, S. P. Anderson; "Barley Mow" public-house, Thames-st.; alterations and additions, Speechley & Smith; Penrhyn-rd.; 12 houses, J. Brewerton; "Alexandra" Hotel, Tudor-rd., alterations, F. G. Fisher & Sons; 19, Fairfield South, The Southfield Engineering Co., workshop, E. Chalk & Son.

Leeds.—Catholic authorities acquired site for church to be dedicated to Our Lady of the Rosary.

Letchworth.—M.H held inquiry into application of U.D.C. for sanction to £13,272 for public offices and public convenience.

London (Battersea).—B.C. to proceed with demolition of main buildings at St. John's College, to make way for new tenements.—Council to rebuild wall and erect fence at 158, Reform-st. and 447 and 449, Battersea Pk.-rd.

London (Bermondsey).—B.C. to borrow £20,000 for housing purposes in Rotherhithe-st. areas.—Alterations to be made to Town Hall at £2,553.—Council are to purchase lands at Vauban-st.; St. Paul's-lane, Lavender-lane; Mistears-bldgs.; Beaton-st.; Rotherhithe-st. and Essex-place, for slum clearances.—Plans passed:—Bermondsey B.C., flats and cottages abutting on The Grange and Grange-walk.

London (Islington).—B.C. to acquire 9, Highbury-place, at £775, for electricity sub-station.

London (Lambeth).—B.C. approved: United Dairies, Ltd., three garages rear 222, Brixton-rd.; R. A. Hinds, building at the Frederick Hygienic Laundry, Frederick-cres.; H. K. Atkins, garages, Milkwood-rd.; A. J. Cripps & Co., garages, Gaskell-st. and Union-rd.; T. B. Daniel, building, Newburn-st., to abut upon Orsett-st.; W. Fitch, 4 lock-up sheds, rear 17, Wootton-st.,

London (Lea Bridge).—M.W.B recommend £20,000 for River Lea flood relief scheme.

London (Fulham).—B.C. to apply for £24,000 from L.C.C. for electricity undertaking including building sub-station.—Premises at 8, Grimston-rd., been purchased for sub-station extensions.

London (Poplar).—L.C.C. recommend £3,000 in respect of acquisition and clearance of properties in Oliver-court area.

London (Poplar).—B.C. approved:—S. A. S. Yeo, 2, 4, and 6, St. John-st., E.C.1. addition, "The Harry Tavern" public-house, 113, Brunswick-rd., E.14; Tucker & Huntley, 22, Buckingham-st., W.C.2, factory, 169, Campbell-rd., E.3; Andrews & Peascod, 135, Bow-rd., E.3, addition, 53, Bow-rd., E.3.

London (St. Pancras).—B.C. recommend £250 for alterations to 38, Wellington-st. to provide roadway entrance to new works department depôt, James-st.

Manchester.—E. R. Buck and Sons, Ltd., 2, London-rd., propose rebuilding premises in connection with Corporation road widening scheme. Estimated cost £7,750. Plans by J. W. Beaumont and Sons, FF.R.I.B.A., 24, Brazennose-st.

Matlock.—Alterations and improvements proposed at St. Charles' parish church. Rector, Rev. A. Urling Smith. Architect, Diocesan Surveyor, P. H. Currie, 3, Market-place, Derby.

Middleton.—B.S. prepared lay-out for 159 houses on Green-lane site.

Newcastle.—T.C. instructed W. C. C. Hawtayne, M.I.E.E., consulting engineer, 9, Queen-st.-place, London, E.C.4, to prepare scheme for sub-station and change over of supply on Hill Farm and Roelane-estates.

Newton-in-Makerfield.—C.C. approved plans for alterations and improvements to infants' department of Wargrave C.E. school.

Ongar.—Clerk reported that M.H. sanctioned purchase of sites for working class dwellings at Stondon, High Ongar, Shelley, Blackmore, Navestock, Norton Mandeville, Kelvedon Hatch, Lambourne End, Abridge and Stapleford Abbotts.

Plymouth.—T.C. approved:—St. Aubyn Estates, Ltd., new streets and 52 houses, Elms building estate; F. Squance, 5 houses, Camilla-terr.; W. Andrews, 4 houses, Elmfield-rd.; C. A. & W. Goodbody, Ltd., extension of cafe, rear of 20, Bedford-st.; G. A. Daymond, 17 houses, Truslugan-rd. and Trelawney-av.

Pontefract.—E.C. propose adaptation and alterations of existing King's school.

Portadown.—Armagh Regional Committee decided to approve £7,800 for partial reconstruction and enlargement of Portadown and district technical schools.

Radcliffe.—Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston, prepared plans for extensions to Radcliffe technical school.

Rawdon.—Council approved 12 houses, Layton-lane, Edward Barrett.

Romford.—R.D.C. approved four houses Corbets Tye-rd., Upminster, H. W. Wire.

Rugby.—U.D.C. propose extensions to public library. W. H. Spicer, B.S.—B.S. preparing plans for alteration and extension of council chamber.—B.S. preparing plans for extending bath to 100 ft.

Rushden.—U.D.C. approved:—additions to factory, Park-rd. and Park-place, Messrs. J. White (Impregnable Boots), Ltd.; electric sub-station, Wellingborough-rd., Rushden and District Electric Supply Co., Ltd.

St. Helens.—T.C. approved: 9 houses, Rivington-rd., Thos. Ashcroft; 15 houses, Rivington-rd., near St. George's-rd., Jas. Gleave & Son.

Sheffield.—Members of St. Swithin's Church, Vicar, Rev. H. McIntyre, propose parochial hall. Plans are in hand for enlargement of Holy Trinity Church, Grove-rd.

Sidcup.—M.W.B. recommend £1,509 for housing accommodation at 45, St. John's-rd

Stafford.—Funds are being raised for R.C. chapel on site adjoining school, at £7,000.

Stockport.—Corporation to obtain tenders for houses on remaining portion of housing site at Bates' Ley Farm, Adswood. H. Hamer, B.S.

Stockport.—Corporation propose public washhouse in Shawcross-st., Hillgate. Plans by B.S.

Stratford-on-Avon.—R.D.C. recommend £150 for reconstruction of cottages at Hampton Lucy.

Sunderland.—Corporation decided to acquire land at Well Dean Field estate, Southwick, for 85 building sites at £3,900, and to apply to M.H. for sanction.

Surbiton.—U.D.C. approved:—56 semi-detached houses, Raeburn-av., R. A. C. Churchward; 40 houses, Willow Farm estate, Thorogood Bros.

Tadcaster.—R.D.C. considering 10 houses at Golf Links.

Tenbury.—Preliminary plans prepared by R. W. Jarvis, Sanitary Surveyor, and forwarded to M.H. for 20 houses.

Thornaby.—T.C. approved:—Premises, Mandale-rd., National Provincial Bank, Ltd.

Thorne.—Church of England proposing church at Thorne Moor Ends.

Tottenham.—L.C.C. recommend land in Risley-av., White Hart-lane estate be sold to U.D.C. for education purposes.

Tralee.—Sanction received by U.D.C. to acceptance of tenders for 16 houses by Fitzgerald & O'Sullivan, and 14 houses by W. Myles, at £503 each.

Tuxford.—It is estimated that it will cost £650 to restore roof of St. Nicholas Church.

Tynemouth.—T.C. approved shelter beneath Tynemouth Plaza at £6,710. J. L. Beckett, B.S.

Tynemouth.—B.S. preparing plans for 850 houses.

Ulverston.—J. J. Gibbs and Partner, 7, Lune-st., Preston, appointed consulting electrical engineers in connection with proposed lighting by electricity of Institution.

Walton le Dale.—Plans approved for 11 pairs of houses in Burnham-av.

Wembley.—U.D.C. approved: W. Howell, 4 garages, Ravenscroft-ave.; Comben & Wakeling, Ltd., 62, houses, 4-52, Spencer-rd., 1-39, Norval-rd., and 37-69 Nathan-rd.; R. Lincoln, 7 lock-up shops, "The Circus," Carlton-av.; Haymills, Ltd., 6 houses and garages, 12-22, The Avenue; L. S. Kear & Co., 10 houses and garages and new house, 8 in Draycott-av., 2 in Aston-av.; R. E. Jefford, 5 lock-up shops, East-lane and Sudbury-av.; G. H. Gillett and Co., Ltd., 6 houses and garages, Woodcock Hill-lane; A. J. Easton, 4 flats, 2 in Norton-rd. and 2 in Ranelagh-rd.; R. M. Catterson-Smith, factory building adjoining Adams Bridge, B.E.E.; F. Webber, additional buildings to Abbey Foundry, Honeypot-lane.

West Ilsley.—New rectory, costing £3,000, to be erected.

Weybridge.—U.D.C. received M.H. sanction for £10,100 for proposed 22 new houses.

Widnes.—T.C. approved: Extension to engineering shop, Moorfield-rd., P. Spence & Sons, Ltd.; 12 houses and lay-out of land, Hale Gate-rd., Mr. J. Midwood.

Wimbledon.—B.C. to build electricity sub-station at Worcester-pk.—Borough Electrical Engineer to accept tender for repair and testing shop in cable yard at works, and to provide for lighting, heating and equipment there at £1,263. Council borrow £4,000 to erect nine houses in Faraday-rd., Wimbledon.

*See also List of Contracts, Competitions, etc.

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		Splays, and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS
Delivered London

	s. d.		s. d.
2 in. per yd. super.	1 11	3 in per yd. super	2 9
2½ in. „ „	2 4	4 in. „ „	3 6

	s. d.	
Thames Ballast	9 9 per yd	delivered 2 miles radius Paddington.
Pit Sand	12 0 „ „	
Thames Sand	12 0 „ „	
Best Washed Sand	12 6 „ „	
⅜ in. Shingle for Ferro-Concrete	11 6 „ „	
¼ in.	12 0 „ „	
½ in. Broken Brick	11 6 „ „	
Pan Breeze	8 0 „ „	

Per ton delivered in London area in full van loads.
Best Portland Cement. British. Standard Specification. Test £2 6 0 to £2 8 0
39s. alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 7 6
Vitrocrete „ „	0 7 6
Super Cement (Waterproof)	3 16 0
Ciment Fondu (F.O.R. Works)	4 15 0
Roman Cement	5 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair ..... per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.
Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 2 10

BEER STONE—RANDOM BLOCK—
Free on rail at Seaton Station per ft. cube 2 3
Delivered free on rail Nine Elms, S.R. per ft. cube 3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.

PORTLAND STONE.—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube 4 4½
Do. do. delivered on road wagons at above stations, per ft. cube 4 5½
White basebed, 3d. per ft. cube extra.
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

CHILMARK—RANDOM BLOCK—
At Nine Elms, per ft. cube 3 11

HOPTON-WOOD STONE.—
F.O.R. Quarries, Wirksworth, Derbyshire. s. d.
Random blocks from 10 ft. and over P. ft. cb. 14 0
Sawn two sides „ 22 6
Sawn three or four sides „ 27 6

YORK STONE, BLUE—*Robin Hood Quality*.
Delivered at any Goods Station, London.
6 in. sawn two sides landings to sizes (under 30 ft. super) ..... Per ft. super 5 6
6 in. rubbed two sides, ditto ..... „ 6 0
3 in. sawn two sides slabs (random sizes) „ 2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... „ 1 6½
1½ in. to 2 in. ditto, ditto ..... „ 1 3½

HARD YORK—
Delivered at any Goods Station, London.
Scappled random blocks ..... Per ft. cube 6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super 5 1½
6 in. rubbed two sides, ditto ..... „ 6 1½
4 in. sawn two sides slabs (random sizes) „ 2 1½
3 in. ditto ditto „ 2 10
2 in. self-faced random flags ..... Per yd. super 5

CAST STONE

Delivered in London area in full van loads, per ft. cube: Plain, 3s. 6d.; Moulded, 9s. 6d.: Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£27 10	3 × 6	£20 0
4 × 9	26 0	3 × 11	22 0
4 × 8	25 0	2 × 11	23 0
4 × 7	23 0	3 × 9	22 0
3 × 8	20 0	2½ × 9	22 0
2 × 7	20 0	3 × 4½	20 0
2½ × 7	20 0	3 × 4	20 0

PLANED BOARDS.

1 × 11	£28 0	1 × 9	£26 0

PLAIN EDGE FLOORING

Inches.	per sq.	Inches.	per sq.
⅝	18/-	1½	29/-
¾	20/-	1¾	33/-
1	23/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.
1	24/-
1¼	30/-
1½	34/-

MATCHING (BEST)

Inches.	per sq.
½	16/6
¾	19/-
1	24/-

	s. d.
Ins. BATTENS	
¾ × 2 ..... per 100 ft.	2 6
SAWN LATHS.	
Per bundle	2 0

1 INCH AND UP THICK.

Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	£4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	31 0 0	18 by 10	17 5 0
22 by 12	27 19 6	18 by 9	15 10 0
22 by 11	25 5 0	16 by 10	14 14 6
20 by 12	24 7 6	16 by 8	11 5 0
20 by 10	20 17 6		

TILES

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000. f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	£5 2 6
ditto hand-made ditto	5 7 6
Ornamental ditto	5 12 6
Hip and valley tiles (per dozen) { Hand-made	0 9 6
{ Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£12 10 0
Plain Compound Girders	14 10 0
„ Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
⅜ in.	12 0 0	⅝ in. to ½ in.	10 15 0
⅛ in.	11 0 0	⅝ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ⅜ in. and under.	Fittings. Over ⅜ in.	Flanges. ⅜ in. and under.	Flanges. Over ⅜ in.
	%	%	%	%	%	%
Gas	65	52½	45	47½	55	57½
Water	61½	48½	40	42½	50	52½
Steam	57½	45	35	37½	45	47½
Galv. gas.....	52½	40	35	37½	45	47½
Galv. water	47½	35	30	32½	40	42½
Galv. steam	42½	30	25	27½	35	37½

*C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8½d.	2½d.
4 in.	10½d.	9½d.	2½d.
4½ in.	11½d.	10½d.	2½d.
5 in.	1/1½	11½d.	3½d.

*O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0½	10½d.	2½d.
4 in.	1/1½	10½d.	2½d.
4½ in.	1/2½	1/-	2½d.
5 in.	1/5	1/2½	3½d.

*RAIN-WATER PIPES, &c.

Per yd. in 6 ft.	Pipe.	Bends, stock angles.	Branches stock angles.
2 in. plain.....	1/2½	9½d.	1/2
2½ in. „	1/8	10½d.	1/4½
3 in. „	1/6½	1/1½	1/8½
3½ in.	1/11	1/4½	1/11½
4 in. „	2/2½	1/7½	2/4½

*The above R.W. Goods prices are subject to an advance of 5% from October 29th, 1929.

L.C.C. COATED SOIL PIPES—London Prices ex Works

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 5	1 9	2 1
2½ in. „	2 9½	1 10½	2 7
3 in. „	3 0	2 1	2 1
3½ in. „	3 3	2 7	3 7
4 in.	3 8	2 11	4 1½

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Pipe.	Bends, stock angles.	Branches.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	3 6	4 6	7 0
4 in. „ „	4 8	5 6	9 3
5 in. „ „	6 3	9 –	15 0
6 in. „ „	7 3	1 6	19 0

Gasket for jointing 41/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common bars	11 0 0	to	12 0 0
Staffordshire Crown Bars—Good merchant quality	11 5 0	to	12 5 0
Staffordshire Marked Bars	14 0 0	...	15 0 0
Mild Steel Bars	9 10 0	...	10 10 0
Steel Bars, Ferro-Concrete quality, basis price	9 0 0	...	10 0 0
Hoop iron, basis price	11 0 0	...	12 0 0
„ Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g.	11 10 0	...	12 0 0
„ „ „ 24 g.	13 0 0	...	14 0 0
„ „ „ 26 g.	15 0 0	...	16 0 0
Sheets Flat Best Soft Steel, C.R and C.A quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. by to 3 ft. to 26 g.	18 10 0	...	19 5 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	18 10 0	...	19 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	20 10 0	...	21 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	22 10 0	...	24 10 0
Best Soft Steel Sheets, 26 g.	24 0 0	...	25 0 0
Cut Nails, 3 in. to 6 in.	16 0 0	...	17 0 0
Under 3 in. usual trade extras.)			

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet. English, 4 lb. and up	24 0 0
Pipe in coils	24 10 0
Soil pipe	27 10 0
Compo pipe	28 10 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt extra. Cut to size, 5s. cwt. extra.

	£ s. d.
Old lead, ex London area, at Mills ..... per ton	£14 0 0

COPPER.

	s. d.
Seamless Copper tubes (basis) ..... per lb.	1 3
Strong sheet ..... „	1 0
Thin ..... „	1 1
Copper nails ..... „	1 7
Copper wire ..... „	1 4

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

¼ in.	½ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps ...	33/-	41/-	56/-	101/- per doz.
6 lbs. S. traps ...	35/-	45/-	66/-	126/- „

TIN.—English Ingots, 1/5 per lb. SOLDER.—Plumber's 8d., Tinmen's 10d., Blowpipe 11d. per lb.

PAINTS, &c.

			s. d.
Raw Linseed Oil, in pipes	per gallon		0 2 8
„ „ „	in barrels ...	„	0 2 10
„ „ „	in drums ...	„	0 3 1
Boiled „ „	in barrels ...	„	0 3 1
„ „ „	in drums ...	„	0 3 3
Turpentine in barrels		„	0 3 4
„ in drums (10 gals)		„	0 3 6
Genuine Ground English White Lead, per ton (in not less than 5-cwt. casks.)			48 0 0

Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*cont.*)

PAINTS, &c.—(*cont.*)

		£ s. d.
GENUINE WHITE LEAD PAINT. "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganwyte," "Polsco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots	per ton delivered	66 10 0
Red Lead, Dry (packages extra)	per ton	37 0 0
Best Linseed Oil Putty	per cwt.	0 15 6
Filicol	,,	0 16 6
Size. XD quality	,,	0 3 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per ft.		Per ft.
15 oz. fourths .. 2½d.	32 oz. fourths	6½d.
15 ,, thirds .. 3½d.	32 ,, thirds	9d.
21 ,, fourths 3½d.	Obscured Sheet, 15 oz.	3½d
21 ,, thirds .. 4½d.	,, 21 oz.	4½d.
26 ,, fourths .. 4½d.	Fluted, 15 oz. 7d., 21 oz.	9½d.
26 ,, thirds 6½d.	Em'lled, 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
¼ Rolled plate	4½d.
⅛ Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8½d.
Rolled Sheet	4½d.
White Rolled Cathedral	5d.
Tinned do.	7d.

Cast plate is same price as rough rolled.

"VITA" GLASS.	Per foot. s. d.
Clear sheet—not exceeding 1 foot	1 0
Do. do. 2 feet	1 3
Do. over 2 feet	1 9
Polished plate—not exceeding 1 foot	1 6
Do. not exceeding 2 feet	3 0
Cathedral—not exceeding 1 foot	1 0
Do. larger sizes	1 6
Horticultural—for greenhouses, etc. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1 0
3/16 in. Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide	2 6

ULTRA VIOLET RAY GLASS.

RAYLITE.

Up to 2 sq. ft. 1/–. Up to 4 sq. ft. 1/2. Up to 8 sq. ft. 1/3.

FOREIGN.

HORTITEX (HORTICULTURAL).

Up to 1 sq. ft. 7d. Up to 2 sq. ft. 8d. Up to 3 sq. ft. 9d. (Not exceeding 24 in. by 18 in.)

Up to 4 sq. ft. 10d. Up to 8 sq. ft. 11d.

VARNISHES, &c.

		Per Gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Opal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 6
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 0
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 6
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 12 6
Best ditto	ditto	1 2 6
Best Japan Gold Size		0 12 0
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebene		0 9 0
Cuirass Black Enamel		0 7 0

"Whitaker's."

The question has often been postulated as to what one book would be the most entertaining company for a solitary man cast upon a desert island. Various claims have been put forward, ranging from the Pilgrim's Progress to collected stories of O. Henry, but a good case could be made out for "Whitaker's." Next to the London Telephone Directory it must be the most consulted book in Great Britain, for the very good reason that it seems to withhold no information. Whether one requires a summary of the activities of Abyssinia, or details of one of the principal London buildings, whether a description of Sydney Harbour bridge is sought, or any reference to architectural or building matters, "Whitaker's" does not fail. Let us delay no more on the merits of this most excellent volume, but hasten to say that the 1931 issue is obtainable in a full or abbreviated edition, at 6s. or 3s. net respectively, from the publishers at 12, Warwick-lane, E.C.4, or from any bookseller.

NEW BUILDINGS IN SCOTLAND

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *Office not later than Tuesday evening.*

Aberdeen.—HOUSING.—Mr. R. G. Duthie, City Chamberlain of Aberdeen, has submitted for the approval of the Town Council a comprehensive scheme to meet the housing requirements of the city.

Burntisland.—HOUSES.—32 houses are to be built at Rossend, for the T.C. The plans are by Mr. J. A. Waddell Burgh Surveyor. No contracts have yet been placed.

Navidale.—RESERVOIR.—The Sutherland C.C. are asking for estimates for (a) works and (b) piping in connection with the construction of new waterworks, comprising about 3½ miles of supply and service piping of 3 in. to 5 in. diameter, filter intake works on the Oriburn, service reservoir at Navidale, and other relative works. Mr. Alex. Grant, of Inverness, is the engineer.

Perth.—SCHOOL.—The Perth and Kinross Joint County Council (Education Committee) are inviting tenders for new school at Cherrybank, Perth. Mr. A. Watt Allison is the architect.

Stirling.—SCHOOL.—Stirling C.C. are to report as to a site for a school which is expected to have accommodation for 300 pupils.

NEW CINEMAS

Armley.—Mr. Walter Bickerton, A.R.I.B.A., Bankroyd-chambers, Bank-street, Castleford, Yorks, is architect for alterations to the "Picture House," Branch-road, Armley, for the Leeds Entertainments, Ltd.

Birmingham.—Mr. W. E. Salt, a chartered accountant, on behalf of a private syndicate, has secured the Justices' provisional approval to the erection of a new cinema in Yardley-road, Acocks Green. The identity of those forming the syndicate was not disclosed. This new theatre will have a total seating capacity of 1,458, including a balcony holding 400.

Blackburn.—Associated British Properties, Ltd., Rochdale, with which Alderman Bryning, J.P., is associated, is negotiating for site in Penny-street for a super-cinema. The land is owned by the Blackburn Corporation. If the negotiations are successful the cinema will cost approximately £40,000. An architect has not yet been appointed to prepare the plans.

Hammersmith.—A super-cinema is to be erected at the junction of Fulham Palace-road and Queen's-street, when existing property has been demolished. The architect is Mr. Robert Cromie, F.R.I.B.A., 35, Baker-street, W., and the contractors Messrs. McLaughlin & Harvey, Ltd., of Highbury-grove, N.

Southwark.—Mr. H. W. Binns, F.S.I., 15, Soho-square, has submitted an application to erect a cinema on the western side of Walworth-road, between Steedman-street and Wansey-street.

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons'‡ Bricklayers'† Plasterers'.†
Aberdeen	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Arbroath	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Ayrshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2 1/3
Berwickshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/8	†1/2½
Broughty Ferry	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Clackmannanshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Dumbartonshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Dumfries	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Dumfriesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Duncon	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
East Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Forfarshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Fort William	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/2
Galashiels	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8½	‡1/2½ †1/2½
Hawick	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Inverness	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1 1/2
Inverurie	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7½	1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kincardineshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Kinross-shire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Kirkwall	1/5	1/5	1/5	1/6	1/5	1/5	1/6	1/–
Lanarkshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Midlothian	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8½	‡1/2½ †1/2½
Peeblesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Perthshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Peterhead	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7½	1/2
Renfrewshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Rothesay	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Roxburghshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
St. Andrew's	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Selkirkshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Stirlingshire, West	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1
Stornoway	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
West Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8½	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 1008.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0
Chilmark stone fixed complete	" "	17	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	0	11
Centre for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	"	—	49/-	57/6	65/-
Do. matchings	"	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	"	3	9

DOORS.

		1¼"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1¼"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail: average, 3 in. × 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roofwork	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	44	0
Do. Do. in flats	"	43	0
Extra labour and solder in coated cesspools	each	6	9
Weld joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

		½"	¾"	1"	1¼"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	" "	2	9
Do. Do. Keen's	" "	4	0
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10½
¼-in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	3
Preparing for and hanging paper	per piece, 2/- to 4/-		

*These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10%, on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

Change of Address.

The installation by Messrs. Fry's (London), Ltd., of new furnaces and plant to cope with the demand for this company's "Enox" hacksaws, and the consequent encroaching upon the warehouse space at the Greenwich works, has necessitated the finding of new warehouse accommodation. The company's head office and warehouse will, in future, be combined at 24/5, King-street, Minories, E.1. Telephone: Royal 6152/6153.

Lighting Fitting Construction.

The "Hedralyte" system of lighting fitting construction, now being developed by Messrs. Holophane, Ltd., of Westminster, is the invention of Mr. Ernest Stroud, the chief engineer of the company, and the principle involved is the adoption of a series of geometrically shaped prismatic glass panels, by means of which lighting fittings of various designs and sizes may be built up. The glass panels, as at present made, are designed with a series of prisms on the interior surface, to split up the light rays, and on the exterior surface a combination of concave flutings, giving a soft diffusion, and spreading to the natural light distribution of the bare lamp. Further particulars may be obtained by applying to the Holophane Company, Elverton-street, Westminster, S.W.1.

Staff Annual Conference and Dinner.

The Trussed Concrete Steel Co., Ltd., in accordance with long-standing custom, in the second week in December held their annual conference. The weightier matters disposed of, the Truscon Sports Club, which is responsible for the lighter side of the company's activities, considered the assemblage of so many provincial members of the staff made an appropriate occasion for their annual dinner and dance. This was accordingly held in the evening, and members of the club, in addition, provided an excellent concert. On Friday, December 12, the head office principals and provincial managers were the guests of the directors at a dinner. Here, brief speeches were not considered *de trop*, and these took the form of several tributes by the provincial managers and others to the unique and altogether inspiring spirit of co-operation which existed between themselves and the directors. It was the general feeling of all the members of the company's executive staff that they were something more than mere ciphers in a highly efficient organisation, and were rather a smoothly working, happy team under the captaincy of executives of real foresight and zeal tempered by a human outlook. Toasts and speeches having been disposed of, the party rounded off another altogether delightful evening at the Prince Edward Theatre.

NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

J. & H. PATTESON, LTD. (252,179). Registered November 22. Marble merchant and monumental mason. 96, Oxford-road, Manchester. Nominal capital, £35,000

SALT HILL ESTATES, LTD. (252,548). Registered December 6. Bray View, Dorney Reach, Taplow. Builders and contractors, etc. Nominal capital, £100.

BRIXWORTH CLAY PRODUCTS, LTD. (252,527). Registered December 6. Cleaton-lane, Brixworth, Northamptonshire. Manufacturers of bricks, floor and roofing tiles, earthenware, etc. Nominal capital, £500.

H. KERSWELL & Co. (KENTON), LTD. (252,509). Registered December 5. House decorators' and painters' sundriesmen, etc. Nominal capital, £1,500. H. Kerswell, 2, College-road, W.13.

A. W. CLEMENTS, LTD. (252,453). Registered December 4. To acquire lands and hereditaments; to erect houses, and manufacture bricks, tiles, etc. Nominal capital, £2,000. A. W. Clements, "Porto Novo," Hythe-road, Worthing.

E. F. BLAKELEY & Co. (LIVERPOOL), LTD. (252,427). Registered December 3. 3, Stanley-street, Liverpool. Constructional engineers, electrical, mechanical or civil engineers, etc. Nominal capital, £500.

COLERIDGE ENGINEERING CO. (SHEFFIELD), LTD. (252,369). Registered December 1. Coleridge-road, Sheffield. Structural engineers, etc. Nominal capital, £5,000.

H. & D. WINN, LTD. (252,466). Registered December 4. Builders and building contractors, etc. Nominal capital, £1,000. H. J. Winn, 12, Sunset-road, S.E.5.

WOODLANDS (SLOUGH), LTD. (252,450). Registered December 3. Builders and contractors, etc. Nominal capital, £10,000. H. B. Perry, "Edgewood," Grange-over-Sands.

HOLBURY BUILDING ESTATES, LTD. (252,434). Registered December 3. Builders, and dealers in land, etc. Nominal capital, £3,000. F. T. Johns, Ringwood, Hants.

NORTHENDEN ESTATES (252,438). Registered December 3. Builders, contractors, general engineers, etc. Nominal capital, £4,000. J. R. Pendlebury, J.P., Claremont, Hale-road, Hale.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

- *** Denotes *accepted*.**
- **† Denotes *provisionally accepted*.**
- **‡ Denotes *recommended for acceptance*.**
- **§ Denotes *accepted subject to modifications*.**
- **¶ Denotes *accepted by H.M. Office of Works and H.M. War Office*.**

Acton.—Office at Wales Farm-road, for the Town Council. Mr. W. G. Cross, Borough Engineer:—

*L. H. Draisey, Acton £175

Acton.—Supplying, fixing and painting wrought-iron railings in Wales Farm-road, Acton, W.3, for the Corporation. Mr. W. G. Cross, Borough Engineer:—

*Bayliss, Jones & Bayliss, London, E.C.4 ..... £165

Altrincham.—48 houses in Princess-street and Sunderland-road, for the U.D.C. Mr. H. E. Brown, surveyor:—

*Roger B. Key, Woodley, near Stockport £15,810

Banstead.—Admission villa at Banstead Mental Hospital, for the L.C.C.:—

		Empire Materials.
John Garrett and Sons, Ltd.	£47,248 0	£47,248 0
Jas. Carmichael (Contractors), Ltd.	43,712 0	43,712 0
Holliday & Greenwood, Ltd.	43,549 0	43,549 0
Bartley & Ward, Ltd.	43,116 0	43,526 0
J. Smith & Sons, (Norwood), Ltd.	43,020 0	43,045 0
Patman & Fotheringham, Ltd.	42,887 0	43,187 0
F. R. Hipperson & Son	42,107 0	41,607 0
Leslie & Co., Ltd.	41,943 0	41,943 0
Prestige & Co., Ltd.	41,921 0	41,986 0
J. & C. Bowyer, Ltd.	41,577 0	41,577 0
Wilson Lovatt & Sons, Ltd., Wolverhampton	41,508 8	41,658 8
G. E. Wallis & Sons, Ltd., Maidstone	41,440 0	41,440 0
H. H. & F. Roll, Ltd., Epsom	40,170 0	40,993 0
W. H. Gaze & Sons, Ltd., Kingston-on-Thames	39,910 0	*39,973 0
R. Cook & Sons, Ltd., Crowley	39,785 0	40,065 0

(Remainder of London.)

Bedworth.—Reinforced concrete receiving tank and 750,000-gallons reservoir in connection with new water supply scheme, for the U.D.C. Mr. W. H. Crowther-Green, engineer:—

*John G. Gray, Coventry.

Bedworth.—Pavilion at the Welfare-park:—

*Geo. Graden & Son, Durham.

Bexhill.—Sub-station in Sunderland-avenue, for the T.C. Borough Engineer and Surveyor:—

R. Cook & Sons, Ltd., Crawley	£498 0 0
D. J. Williams, Bexhill	471 11 4
T. Wallis, Bexhill	404 0 0
Godwin & Sons, Bexhill	377 8 0
E. H. Sadler, Southsea	370 8 7
*J. Bodle, Ltd., Eastbourne	347 0 0

Birmingham. — Additional handicraft room, science laboratory, two classrooms and teachers' room at Church-road senior mixed school, Yardley, for the E.C.:—

*W. J. Simms, Sons and Cooke, Ltd., Nottingham and Birmingham £5,042

FIREPROOF CURTAIN.

SPRINKLER INSTALLATION.

FIRE HYDRANTS and APPLIANCES.

STAGE LANTERN LIGHT.

"VULCAN" COUNTERWEIGHTING SETS.

PROJECTION ROOM SHUTTERS.

FRANK BURKITT, LTD.,

Theatre and Cinema Engineers,

BOROUGH, S.E.1.

TROCADERO CINEMA, Elephant and Castle.

Architect: George Coles, Esq., F.R.I.B.A.

General Contractors: Messrs. Thomas & Edge.

Illustrated and Described on pages 1078, 1081-1084 of this week's Issue.

Birmingham.—Extending handicraft room to accommodate 40 boys, and converting existing cookery room into science room at Slade-road senior boys' school, for the E.C.:—

°I. Langley, Tyburn, Erdington, Birmingham £1,053

Birmingham.—Additions to Nechells senior mixed school, comprising handicraft room, two domestic science rooms, one science laboratory, two classrooms, cloakroom and staffroom, for the E.C.:—

°C. Bryant & Son, Ltd., Small Heath, Birmingham £7,285

Birmingham.—Caretaker's house at Black Pits-lane Council school, for the E.C.:—

°P. W. Cox, Ltd., Handsworth, Birmingham £697

Bishop Auckland.—New school in Etherley-lane for 288 pupils, for the Durham County E.C. Mr. F. Willey, County Surveyor, 34, Old Elvet:—

°A. Metcalfe & Son, Shildon £7,024 7

Blackpool.—Residential club at the corner of Banks-street and North Promenade, for the Royal Antediluvian Order of Buffaloes. Messrs. Arnold England & Son, architects, Carlton-chambers, St. Annes-road South, St. Annes-on-Sea:—

°L. Fairclough, Ltd., Adlington, near Chorley.
(Estimated cost, £80,000.)

Bolton.—Substation in Milk-street, for the Electricity Committee.

°J. & N. Dickinson (1922), Ltd., Bolton.

Bolton.—Shops and offices at the junction of Oxford-street and Deansgate. Mr. T. P. Bennett, F.R.I.B.A., architect, 41, Bedford-row, W.C.1:—

°J. Gerrard & Son, Ltd., Manchester.
(Estimated cost, £80,000.)

Bradford.—For (*a*) heating at the control room and switch rooms at Valley-road power station; and (*b*) radiant heat superheater at Valley-road power station, for the Electricity Committee:—

(*a*) °Rosser & Russell, Ltd., Leeds.
(*b*) °Foster, Wheeler, Ltd., London.

Bradford.—Alterations at the Hunsworth sub-station, for the Corporation:—

°Wm. Garnett & Co., Thackley, Bradford.

Bradford.—Electrical work at Swain House school, for the E.C.:—

°Ackroyd & Young £361

Chertsey.—Twelve three-bedroom cottages in blocks of four on the site situate on the new road off Chertsey-road, Chobham, for the R.D.C. Mr. F. J. Wareham, clerk:—

°Guildford and District Guild of Builders, Guildford £3,351

Coverack (Cornwall).—Building of a bungalow on the north side of Coverack. Mr. J. S. Hockin, "Carn Dhu," Coverack, Cornwall:—

J. Rule, Mullion £1,060
°T. C. Roskilly, Coverack 847

Formby (Lancs).—Painting externally the 50 Council houses in Whitehouse-lane, Whitehouse-avenue and Watchyard-lane, for the U.D.C. Mr. A. Holmes, clerk:—

°Sidney Southwood, Old Mill-lane, Formby.

Friern Barnet.—Erection of infants' school at All Saints', Friern Barnet, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect:—

F. Cottrell, Ltd., London	£9,530
C. Miskin & Sons, Ltd., St. Albans	9,271
Stevens & Sons, Highgate	9,156
Albert Monk, Lower Edmonton	9,115
Henry Knight & Son, Tottenham	9,099
J. Laing & Son, Ltd., Mill Hill	9,097
Sims & Russell, London	9,073
A. Fairhead & Sons, Ltd., Enfield	9,044
G. Groves & Son, Tottenham	8,989
‡C. J. Newby & Bros., Southgate	8,890

Gateshead.—Workshops, for Messrs. Jackson & Co., Ltd., tailors. Mr. Marcus Glass, architect, 20, Saville-row, Newcastle:—

°William Hall & Co., Ltd., Gateshead.

Glasgow.—222 houses at Netherton housing site, for the Corporation:—

Mason, etc.—
°Alex. W. Paterson £21,421
Joiner, etc.—
°David Paul 16,802
Slater and roughcast—
°P. White & Co., Ltd. 3,711
Plumber and gasfitter—
°Louden Dunlop & Sons 11,001
Plaster—
°Archibald M'Kellar 3,861
Glazier—
°William Purdon & Son 800
Iron railings—
°A. & J. Main & Co., Ltd. 921
Painter—
°Thos. Hastie & Son 1,057

Gt. Yarmouth.—64 houses on the North Denes estate for the C.B. Borough Engineer and Surveyor:—

48 *houses*—
°H. A. Holmes and Son, Gt. Yarmouth £19,201 0

16 *houses*—
°H. R. Middleton and Co., Gt. Yarmouth 6,493 16

Hampton.—Alterations and additions to infants' school, Station-rd., for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect:—

Fassnidge & Son, Ltd., Uxbridge	£1,727
W. S. Try, Cowley, Uxbridge	1,682
W. Lacey, Hounslow	1,624
Limpus & Son, Kingston	1,595
‡W. H. Gaze & Son, Kingston	1,553

Hayfield and Mellor.—Sanitary conversions at Hayfield and Birch-lane Print Works, for the U.D.C.:—

°Mason & Hadfield, Hayfield, near Stockport.
(Estimated cost, £1,000.)

High Wood.—Cleaning, painting and repair work at High Wood hospital for children:—

G. H. Miller & Co., Forest Gate	£2,000 0 0
R. Woollaston & Co., Bow	1,712 0 0
Edward Proctor & Sons, Plumstead	1,595 0 0
W. E. Wisbey, Chelmsford	1,537 19 0
Frank E. Smith, Grays	1,508 0 0
°J. Hocking & Co., "The Valley Works," Charlton, S.E.7.	1,402 12 0
Chief Engineer's estimate	1,700 0 0

Hinckley.—6 houses at Sharnford, for the R.D.C.:—

°J. R. Cooke, Ltd. £2,125

Hinckley.—18 houses at Barwell, for the R.D.C.:—

°G. Cooper and Sons (Nuneaton), Ltd. £6,579

Hove.—Two departments of a new elementary school on the Knoll estate, Old Shoreham-road, for the E.C. Messrs. Clayton & Black, AA.R.I.B.A., architects, 10, Prince Albert-street, Brighton:—

°W. G. Tarrant, Ltd., Byfleet £19,250

Hyde.—Conversion of Werneth Lodge, Higham-lane, Gee Cross, into a maternity home, for the Corporation. Mr. J. H. Ward, Borough Surveyor:—

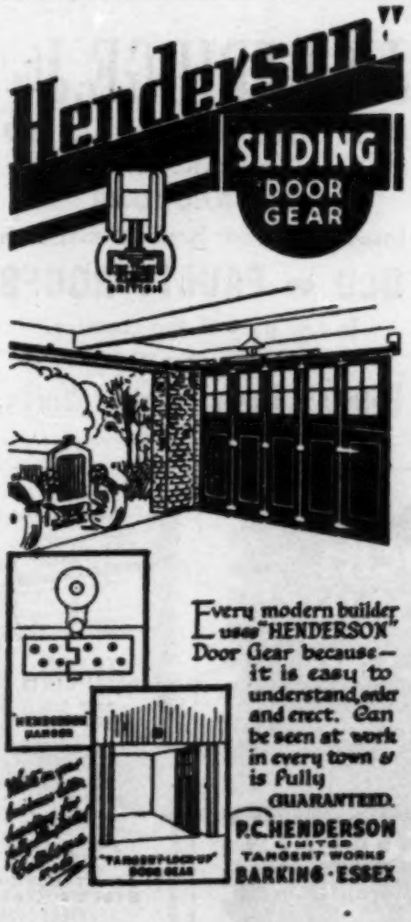
°Wellerman Bros., Ltd., Hyde.

Liverpool.—School at Waterloo, for the T.C. Messrs. Quiggin & Gee, architects, 24, North John-street, Liverpool:—

°D. Ablett & Sons, Ltd., Southport.

¶**London.**—The following works contracts have been placed by the War Office during the week ended December 18, 1930:—

Feltham—erection of barrack block—W. G. Tarrant, Ltd., Byfleet.
Hilsea, R.A.O. Depôt—alterations and additions to regimental institute and erection of two double-storied barrack blocks—W. G. Tarrant, Ltd., Byfleet.
Shorncliffe, Risborough Barracks—erection of a dining-room—J. G. Parsons & Son, Folkestone.



¶**London.**—Tenders accepted by H.M.O.W. for the week ending December 20:—

Chester Station Sorting Office—alterations and additions—Wm. Fleming & Co., Cross-street, Neston.
Shrewsbury S.S.O.—alterations and additions—Wm. Bowers & Co., Bath-street, Hereford.
Hastings E.E.—erection—R. J. Barwick, Market-street, Dover.
Penn Telephone Exchange, Wolverhampton—erection—Henry Gough & Son, Dudley-road, Wolverhampton.
Golders Green Branch Post Office—alterations—G. Groves & Son, 6, Bruce-grove, Tottenham, N.17.
Lowestoft Head Post Office—alterations—D. Leighton & Son, Ltd., Belvedere-road, Lowestoft.
Selly Oak Telephone Exchange—erection.—Maddocks & Walford, Tyburn-road, Gravelly-hill, Birmingham.

London.—Alterations and decorations to the Buckingham Palace-road baths, for the Westminster City Council. City Engineer:—

A. O. Laird, Ltd.	£2,534 0 0
Griggs & Sons	2,397 0 0
Army & Navy Co-operative Society, Ltd.	2,328 4 6
Sims & Russell	2,173 0 0
Patman & Fotheringham	2,065 0 0
Holliday & Greenwood	1,995 0 0
°E. Jenner, Ltd., 27, Grosvenor-gardens, S.W.1	1,987 10 9

(All of London.)

London.—Factory buildings at the Tidal-basin, E.16, for Messrs. W. H. Allen, Sons & Co., Ltd., of Bedford. Mr. George P. Allen, F.R.I.B.A., architect and surveyor, 81, High-street, Bedford:—

Steelwork, roofs, gutters, etc.—
°D. Powell & Co., Ltd., London £450
Foundations, brickwork, concrete floors, etc.—
°Gregson & Co., London 940

London.—New chapel, shelter and conveniences at the North Sheen Cemetery, for the Fulham B.C. Borough Surveyor:—

	(*a*)	(*b*)
Christian & Sinclair, Ltd.	£6,159 16 5	£6,793 9 6
G. B. Farrar & Co.	5,594 0 0	6,381 0 0
T. H. Kingerlee & Sons, Oxford	5,739 0 0	6,348 0 0
F. G. Cressy, Ltd.	5,873 15 1	6,780 0 0
J. & R. Thompson, Ltd.	5,344 0 0	6,154 0 0
V. Brown	5,682 0 0	6,366 0 0
C. H. Gibson, Ltd., 509, London-road, Croydon	°5,238 0 0	5,016 0 0
W. J. Marston & Son	5,900 16 9	6,268 18 0
W. H. Cooper & Son	4,963 16 0	4,741 4 0
Jno. Crewsden, Horley	4,504 0 0	4,060 0 0
H. Roffey & Sons	6,065 8 5	5,717 11 6
Folsham, Ltd.	5,719 4 1	5,597 12 3
R. Dixon & Sons	5,606 0 0	5,302 0 0
R. Woollaston & Co.	5,363 16 8	6,152 16 5

(Remainder of London.)

(*a*) Portland stone.
(*b*) Part Portland, part artificial stone.

London.—Tenders accepted by H.M. Air Ministry week ending December 13:—

Duxford.—Artificer's Work.—A. Negus and Sons, Ltd., 52, Regent-street, Cambridge.
Peterborough—concrete reservoir.—J. Guttridge and Sons, Ltd., Park-road, Peterborough.

London.—Roof glazing of the new boiler house at Nine Elms baths, for the Battersea B.C.:—

°Paragon Glazing Co., 5, Victoria-street, S.W.1 ..... £314 0 3

London.—Demolition of existing store structure and building new store shed at Cobbett-street depot, for the Lambeth B.C. Borough Engineer:—

Sykes & Son, Ltd.	£720 0
Corolite Construction, Ltd.	695 14
W. Chappell & Co., Ltd.	680 0
J. Darch, Ltd.	510 0
W. Harris, Ltd.	467 6
A. Bedford	453 0
H. D. Harding, Ltd.	432 0
°Castle Bros., Ltd.	428 5

(All of London.)

London.—Alterations and additions to the Maria Grey training college and Brondesbury and Kilburn high school for girls, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect:—

W. Lawrence & Son, Ltd., London	£19,976
J. Dorey & Co., Ltd., Brentford	19,943
C. J. Newby & Bros., Southgate	19,837
Henry Knight & Son, Tottenham	19,826
R. Ginn, Ltd., Hertford	19,717
William Lacey, Hounslow	19,587
A. Fairhead & Sons, Ltd., Enfield	19,489
L. & W. Whitehead, Ltd., London	19,291
Albert Monk, Lower Edmonton	19,179
‡G. Godson & Sons, Ltd., Kilburn-lane, W.	19,135

London.—Terra-cotta work in connection with erection of Battersea power station, for Central Electricity Board. Messrs. C. S. Allott & Son, consulting engineers, 1, North-parade, St. Mary's Parsonage, Manchester. Mr. F. L. Halliday, A.R.I.B.A., architect, 14, John Dalton-street, Manchester:—

°Shaw's Glazed Brick Co., Ltd., Darwen £28,000

Manchester.—Electrical installation at Burnage high school for boys for the E.C. Mr. F. R. Warbreck Howell, Town Clerk:—

°R. Seddon and Sons, Ashton New-road, Manchester.

Manchester.—Alterations and additions, to the municipal special school and housewifery centre, Beech Mount, Harpurhey, for the E.C. Mr. F. E. Warbrick Howell, Town Clerk:—
*Smith and Briggs, Ltd., Old Trafford, Manchester.

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Manchester.—Extensions and alterations to the Birley-street Municipal school, Beswick, for the E.C.:—
*Tinker & Young, Ltd., Monsall-street, Manchester.

Manchester.—Alterations to premises John Dalton-street and St. James'-square, for Messrs. W. H. Sutton & Sons, estate agents, 60, Spring-gardens. Messrs. J. H. Andrews & Butterworth, L.R.I.B.A., architects, 9, St. James-square, Manchester:—
*Moston Brick & Building Co., Ltd., Manchester.

Marsden.—Council school, for the Durham E.C. Mr. F. Willey, County Surveyor, 34, Old Elvet, Durham:—
*W. Allison.

Minehead.—Alterations and additions to the ladies' public conveniences on the sea front, for the U.D.C.:—
*W. E. Dewar £142 16

Prestwich.—Extension of existing public convenience in Poppythorn-lane, near Bury New-road, for the U.D.C. Surveyor:—
*Normantons, Ltd., Fern Bank, 167, Plymouth-grove, Manchester.

Scarborough.—Detached house at the Infectious Diseases Hospital, Cross-lane, Newby, for the T.C. Mr. Harry W. Smith, A.M.I.C.E., Borough Engineer:—
*Jaram and Son, 20, Back Gladstone-street, Scarborough.

Southall-Norwood.—Nine trickling filters, four sludge digestion tanks, four sludge beds, and two pumping stations, for the U.D.C. Mr. A. J. Martin, civil engineer, 108, St. George's-square, Westminster, S.W.1:—
*Swainson & Co., Ltd., Craven House, Kingsway, W.C.2 ... £16,019 3 6

West Bromwich.—New elementary school in the Greets Green area to accommodate 880 pupils, for the E.C. Mr. T. Spencer Wood, architect, of Messrs. Wood and Kendrick and Edwin P. Reynolds, 57, Colmore-row, Birmingham:—
*John Dallow and Sons, West Bromwich.

West Kilbride.—Addition and reconstruction to Golf Clubhouse, Seamills, West Kilbride. Mr. J. A. Laird, architect, 55, West Regent-street, Glasgow:—
*R. Jacks & Sons, West Kilbride.

Westmeath.—Slow sand filter beds, cast-iron water mains, with valves and fittings, the provision of electric motors and pumps and other works in connection with the water supply of Mullingar, for the County Board of Health and Public Assistance. Mr. P. H. McCarthy, consulting engineer, 26, Lower Leeson-street, Dublin:—
Patrick Blake, 3, North Great George's-street, Dublin £6,785 0 0
*Wm. Lacy, Howth, Co. Dublin ... 6,525 10 0
(Four other tenders received.)

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Wimbledon.—Sub-station on the Fullbrooks estate, for the B.C. Borough Electrical Engineer:—
*T. Jackson £198

Witton.—Erection of the Witton Gilbert Council school, for the Durham E.C. Mr. F. Willey, County Surveyor:—
*E. Rutter & Sons, Esh £6,605

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